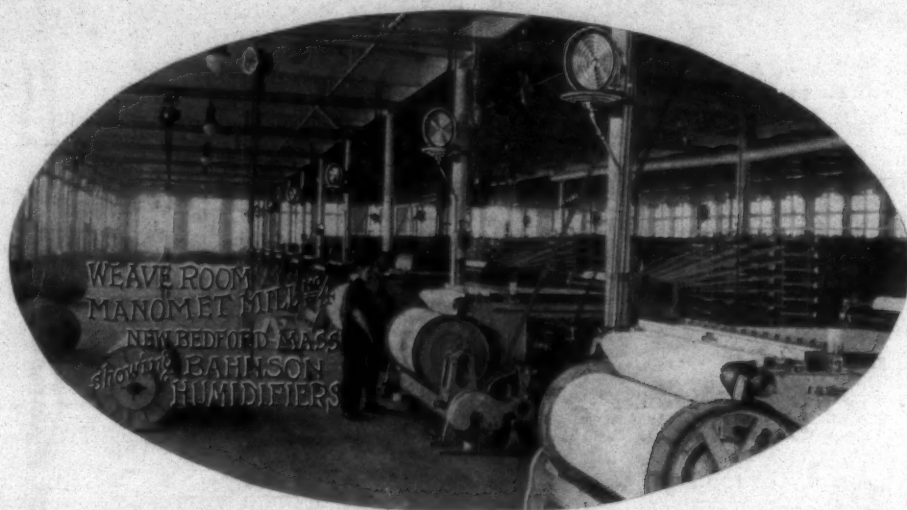


# SOUTHERN TEXTILE BULLETIN

VOLUME 25

CHARLOTTE, N. C., THURSDAY, NOVEMBER 15, 1923.

NUMBER 12



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There are many cotton mills today getting "fair" production that would get a great deal more if they heard the whole story of Sonneborn savings from one of our experts.

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# Starch



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They signify the different grades in which Thin Boiling Eagle Starch is offered to the textile industry.

Being the pioneers in the manufacture of Thin Boiling Starches, we are gratified at the widespread recognition they have received.

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You can secure all advantages of Hyatt bearings on any make of frame now. Write us for complete information.

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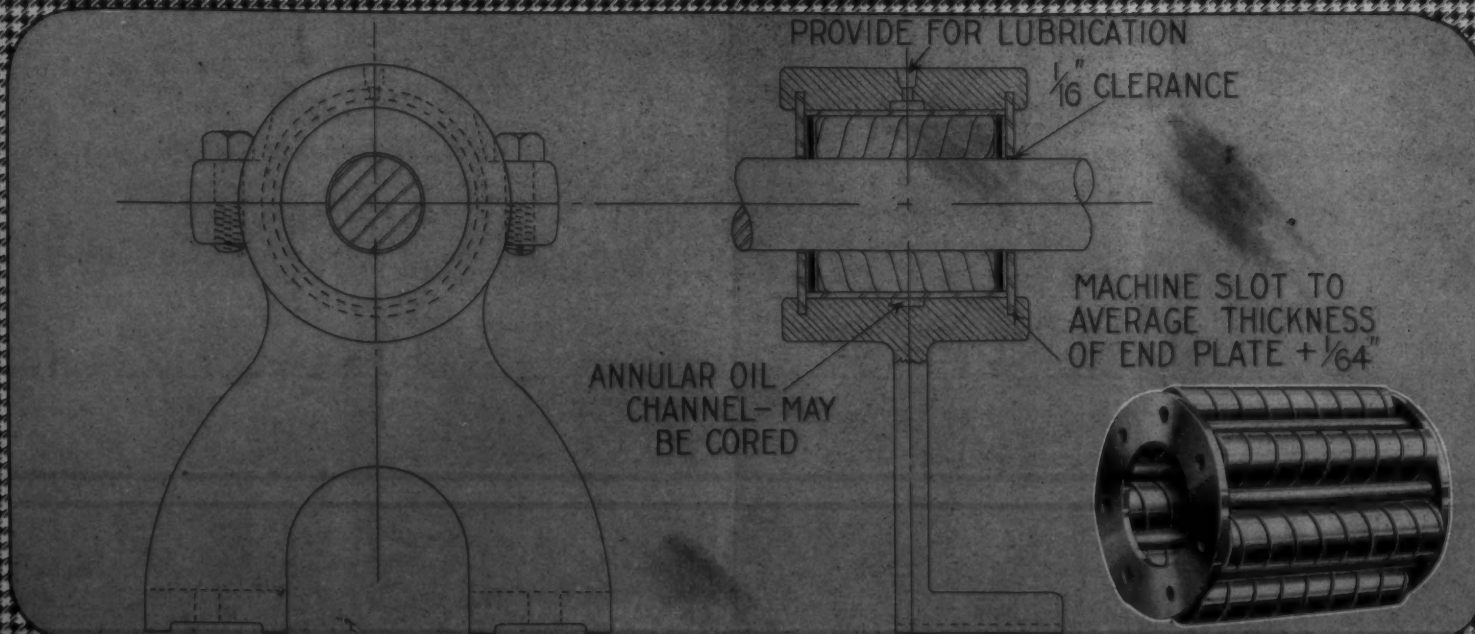
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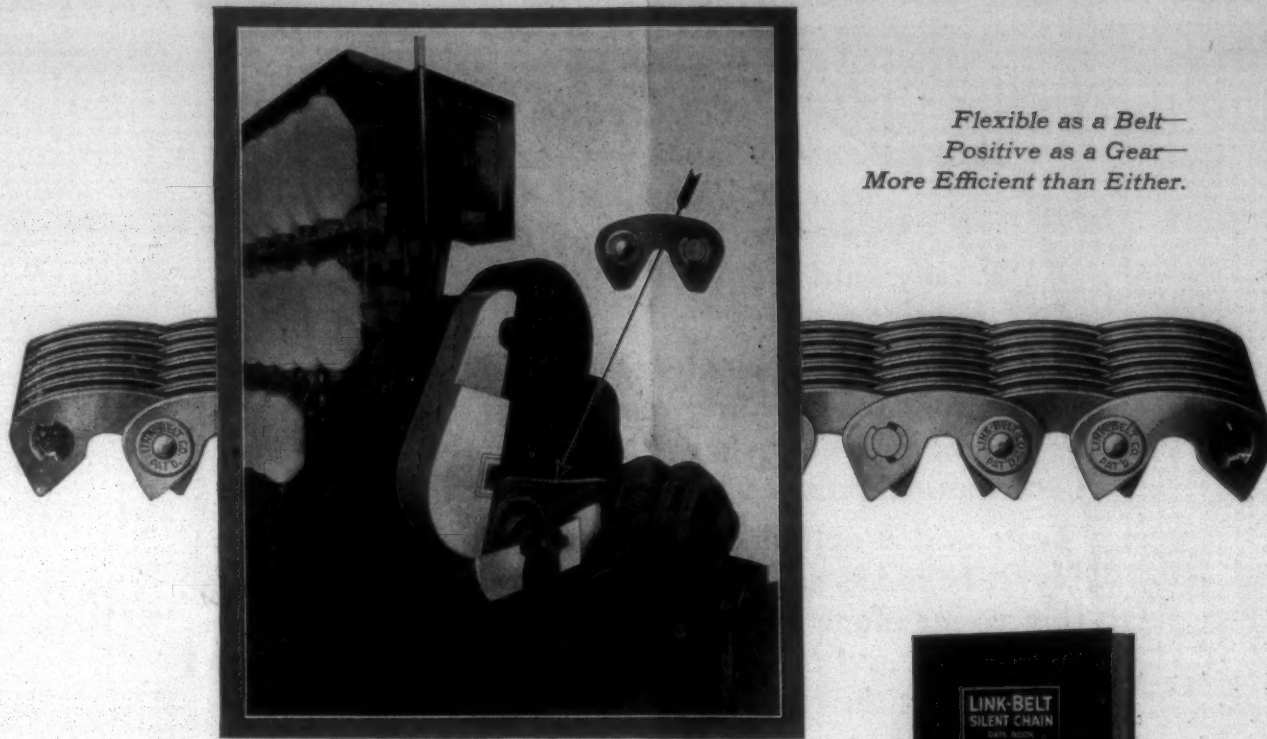
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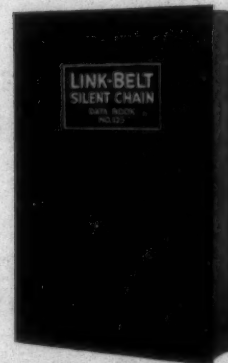
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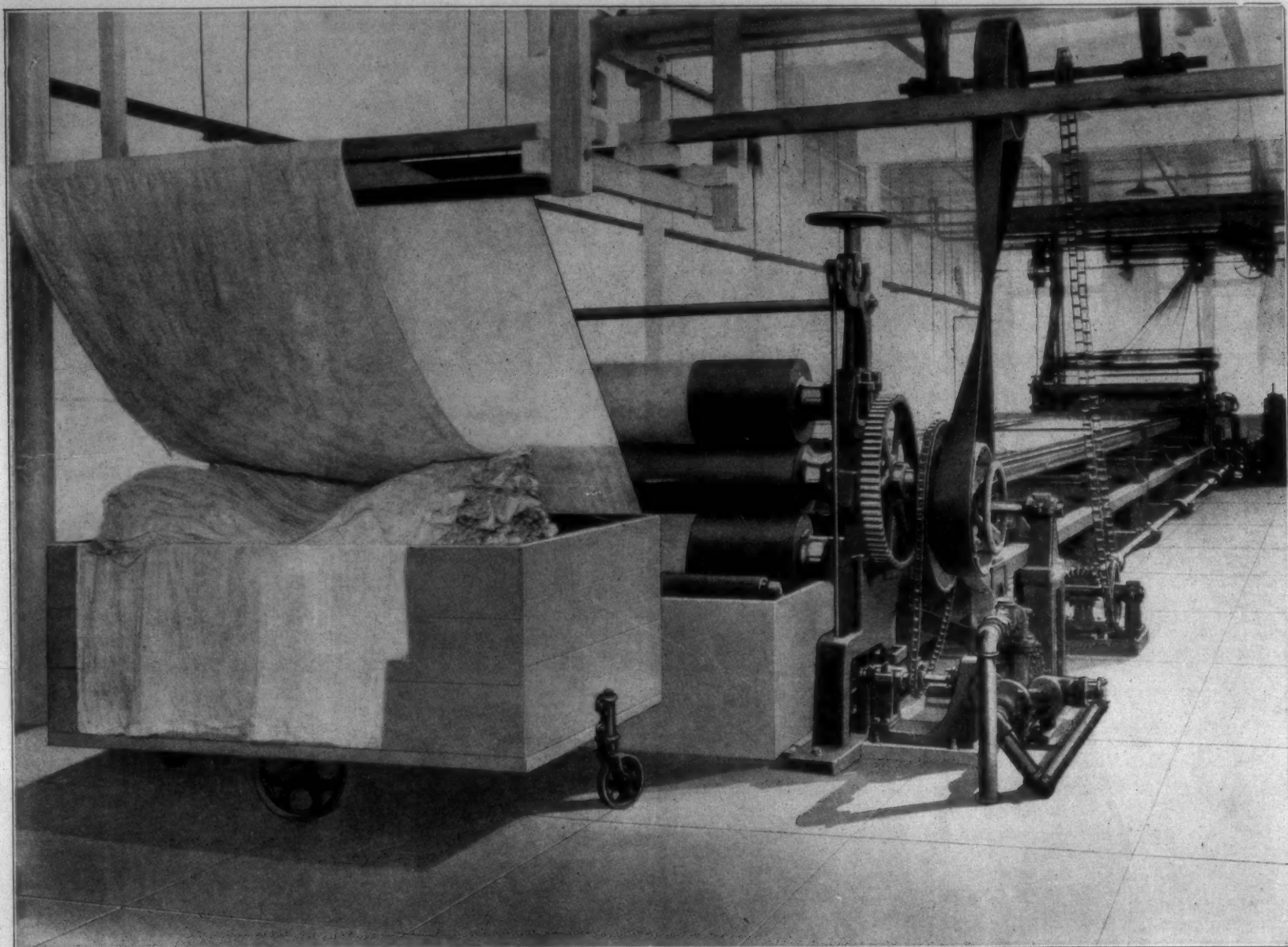
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It also insures the goods against shrinking, as maximum shrinkage is attained in the process.

Whether your product is just the warp or the woven fabric, we will be glad to help you answer the question as to whether or not it will be to your advantage to mercerize it.

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Successful performance has been a source of satisfaction to both builder and user alike—testifying to the fact that they are designed right, built right and applied right.

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Westinghouse Individual Motor Drive has become standard practice in every branch of the textile industry.

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# SOUTHERN TEXTILE BULLETIN

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VOLUME 25

CHARLOTTE, N. C., THURSDAY, NOVEMBER 15, 1923.

NUMBER 12

## *Employee Representation at Pacific Mills*

(H. Gilbert France, Service Manager of Pacific Mills, before National Association of Cotton Manufacturers.)

It was early in the year of 1919 when we first started to study carefully the experience of other industries with employee representation. As you may remember John Leitch's interesting book "Man to Man" appeared at that time and although I feel that his "industrial democracy" is not a sound solution of the problem that confronts all of us, his book served to awaken many of us to constructive action in approaching the labor problem. As a result some of the men in our organization visited the William Demuth Company, where John Leitch's scheme had been in operation a number of years, we went to the International Harvester Company, which was just introducing its successful plan of employee representation in March of 1919, to the General Electric Company, to the Midvale and Bethlehem Steel Companies and to many others. The first definite step leading to employee representation taken by us at our Lawrence plants was the introduction of safety committees, which were composed of employees appointed by the overseers. It was natural that at first many overseers appointed persons they could spare best with the result that the ablest persons in many departments did not get on the committee, but gradually as the committees began to function and to call attention to dangerous conditions and to point out remedies more competent persons began to serve on them. Eventually it became the practice of a good many overseers to leave the selection of the safety committee member to his employees, either allowing one section at a time to select one or conducting an election in his department as a whole. While this change in the manner of selecting members was in progress, there was also a change in the kind of subjects that were being brought up in the meetings. Gradually other things than safety were discussed, at first they were matters of services to the employees, but later changed to more fundamental matters until one committee raised the question of whether or not a certain employee had been fairly discharged and also took up matters of production.

Realizing that the overseers could make or break any labor policy of the company, our next step was to begin to convince them that employee representation was a good thing. In the fall of 1921 we sent three different groups of overseers

to Chicago, New York, Philadelphia and Lynn to see for themselves how employee representation was working. The result of these trips can best be illustrated by the remarks of one of the overseers. On the way out to Chicago the party was discussing what they were going to see and he said "Employee representation to my mind is the first step towards Bolshevism." On the way back he could not say enough in favor of what he had seen and at an overseer's meeting got up and stated that what Pacific Mills should do was to adopt word for word the plan of employee representation that he had seen in action. The big strike of 1922 seemed on the face of it to be a direct denial that we were making any progress, but actually it convinced us even more of the need of talking things over with our employers and it proved to us that the days of suddenly posting notices of wage reductions had gone by with us.

On January 9th of this year we issued to each employee a bulletin which announced that "the management of Pacific Mills feels that the best interests of the employees and the corporation require that the management and the employees work together more closely, and that some definite method be adopted for the frank discussion of their joint problems." We proposed that an election be held resurrecting the former safety committees and that the 91 persons so elected should elect a sub-committee of 11 to work with eight management representatives to devise a plan of employee representation that would fit our needs. On January 11th we issued blank ballots to every employee below the rank of second-hand with instructions that each employee write in the names of as many employees as his department was entitled to have as representatives. The nominations aroused a good deal of interest as 84 per cent of the number of persons on our payroll cast ballots. Of course we got some ballots that contained facetious remarks or gave suggestions that we restore the 22½ per cent wage cut of December, 1920, but that was really to be expected with 8,000 ballots being distributed. We ranked the names from these ballots in the order of the number of votes received and then took twice as many names as were eligible for election in each department and printed them on the final ballots which were

distributed on January 17th. The number of ballots that were marked in the final election exceeded the number of the primary, the final percentages being 85 per cent. The interest in the election was clearly shown in many departments by posters advocating the election of a certain individual or even advocating the defeat of another. In this last case a poster was put up "Don't vote for So and So" who happened to be a man who had been very active against us in the strike and who was well known throughout the city for his radical utterances. The overseer of that department, even though he heartily agreed with the sentiments expressed in the poster, did not think it was an ethical piece of electioneering, so he had that poster removed. The voters in the department showed the same good judgment as the overseer by defeating the candidate referred to. As a rule the employees elected some of the best men in each department, for example, 24 of the representatives were fixers, 63 of them were Anglo-Saxons, their average length of service with the company was over six years and their average age was practically 39. A radical organization in Lawrence had publicly condemned our plan and stated that it would take care of the situation by electing a majority of the delegates, but when the voting was over it showed that only three of the persons who were active in the organization had actually been returned winners.

Our plants at Lawrence are divided into four distinct geographical units, namely, the Cotton Department, No. 10 Mill, the Lower Mill and the Print Works. After election the delegates in these four units met alone and each unit elected two members to a joint committee, except the Print Works, which elected three, making a total of 11 employee members. The management appointed eight persons from the rank of overseer and higher to serve on this committee, which was organized for the purpose of working up a tentative plan of employee representation.

The first meeting of this committee was held on January 30th of this year and the following purpose of our plan was presented to it as a basis for its work: "The purpose of a plan of employee representation is to promote understanding and fair dealing between management and employees by

(a) Providing the the employees with a means of expressing to the management their opinions on all matters concerning their working conditions.

(b) Providing the management with a means of consulting with the employees on matters of mutual concern.

The committees to be established under this plan are advisory and are for the purpose of assisting the management in making its decisions with due regard to the point of view of the employees."

One of the first questions asked by the employee members of this committee was whether or not the management had any plan that it felt would answer the purpose. We stated that we had drawn one up for the purpose of clarifying our opinions, but that it could not be considered a definite or final plan. Quite a debate followed with the employees arguing that our plan should be used as a basis for discussion, while many of the management representatives argued that it would be better if the employees presented a plan. Finally it was agreed that our tentative plan should be produced at the next meeting. Meanwhile the employee members were given copies of plans in operation at other plants and other literature showing the results of such plans. At the second meeting of this committee the plan that we had drawn up was gone over item by item and various changes were made. The next step was to send the employee members of the committee to the General Electric Company at Lynn and the U. S. Rubber Company at Malden, where they talked with representatives of these companies and with some of the employees. I later learned that they showed these employees our modified plan and obtained their opinions on how it would work. After these trips the employee members met for a day and half by themselves and made other corrections to our plan and then finally on February 19th the whole committee met and came to a unanimous agreement on every item of our present plan. Shortly thereafter we held meetings of all the delegates in the four units and presented the plan to them and had it ratified. At the same time the management ratified it also. I will not attempt to go into it in detail as it would consume too much of your time, but

(Continued on Page 31)



## October Cotton Consumption.

Washington, Nov. 14.—Cotton consumption was larger during October than in any month since last June, but for the first three months of the cotton year it was about 37,000 bales less than during that period last year, Census Bureau figures issued today show.

Cotton growing States had the largest number of active spindles on record during October. Exports of cotton for the month exceeded September by 92,000 bales and for the first three months of the cotton year 275,000 bales more were exports than in the same period last year. Cotton on hand October 31 was about 1,000,000 bales less than a year ago.

Cotton on hand October 31 was:

In consuming establishments, 1,102,583 bales of lint and 87,515 of linters, compared with 773,173 of linters, compared with 773,173 of lint and 92,819 of linters on September 30 this year and 1,381,945 of lint and 82,403 of linters on October 31 last year.

In public storage and at compresses 3,485,839 bales of lint and 35,810 of linters, compared with 2,147,830 of lint and 22,197 of linters on September 30 this year and 4,267,119 of lint and 16,798 of linters on October 31 last year.

Imports during October totalled 7,615 bales, compared with 6,608 in September this year and 26,815 in October last year.

Exports during October totalled 781,722 bales, including 3,938 bales of linters, compared with 689,435 bales including 3,732 of linters in September this year and 798,664 bales including 1,633 of linters in October last year.

Cotton spindles active during October numbered 34,378,662 compared with 33,929,885 in September this year and 33,837,435 in October last year.

Statistics for cotton growing States include:

Consumed during October 357,673 bales, compared with 327,441 in September this year and 346,095 in October last year.

Cotton on hand October 31 was:

In consuming establishments 707,536 bales, compared with 374,507 on September 30 this year, and 858,491 on October 31 last year.

In public storage and at compresses, 3,353,479 bales, compared with 3,025,068 on September 30 this year and 4,083,181 on October 31 last year.

Cotton spindles active during October numbered 16,084,942 compared with 16,011,049 during September this year, and 15,211,025 during October last year.

## Chinese Carpet Industry Active.

The rug manufacturing industry in North China is very prosperous, according to a report received by the Department of Commerce from Clerk Anselm Chuh, Peking. The total value of rugs exported to foreign countries in 1922 from China was estimated at Hk. Tls. 3,299,727 (haikwan tael equals approximately \$0.775), of which 2,687,175 Hk. Tls. worth were sent to the United States.

## CLARK'S TABLES

## of Manufacturing Margins on Weaving Yarns

Tables below are compiled by deducting from net returns from yarn sales the total cost of cotton.

**NET RETURNS** for weaving yarns are selling prices less 5 per cent commission, 3 per cent discount and freight.

**TOTAL COTTON COST** is price of cotton with cost of 15 per cent waste added or is the cost of cotton per pound of yarn.

**MANUFACTURING MARGIN** is **NET RETURNS** less **TOTAL COTTON COST** and is the amount that is left to cover wages, salaries, power, supplies and all other overhead.

**TO USE TABLES**—Find selling price of yarn on top line and price of cotton on side and the figure in square caused by their intersections is the manufacturing margin.

(Copyright by Clark Publishing Co.)

Table No. 1

Cost of Cotton	Cotton Plus Waste	Price of Yarn																		
		Price of Yarn																		
		5% & 3% & .65 frt	Less	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
12	14.12			13.80	14.72	15.64	16.56	17.48	18.40	19.33	20.25	21.17	22.09	23.01	23.93	24.85	25.78	26.70	27.62	28.54
13	15.29			12.70	13.55	14.47	15.39	16.31	17.23	18.16	19.08	20.00	20.92	21.84	22.76	23.68	24.61	25.53	26.45	27.37
14	16.47			11.45	12.37	13.29	14.21	15.13	16.05	16.98	17.90	18.82	19.74	20.66	21.58	22.50	23.43	24.35	25.27	26.19
15	17.65			10.27	11.19	12.11	13.03	13.95	14.87	15.80	16.72	17.54	18.56	19.48	20.40	21.32	22.25	23.17	24.09	25.01
16	18.82			9.10	10.02	10.94	11.86	12.78	13.70	14.63	15.55	16.47	17.39	18.31	19.23	20.15	21.08	22.00	22.92	23.84
17	20.00			7.92	8.84	9.76	10.68	11.60	12.52	13.45	14.37	15.29	16.21	17.13	18.05	18.97	19.90	20.82	21.74	22.66
18	21.18			6.74	7.66	8.58	9.50	10.42	11.34	12.27	13.19	14.11	15.03	15.95	16.87	17.79	18.72	19.64	20.56	21.48
19	22.35			5.57	6.49	7.41	8.33	9.25	10.17	11.10	12.02	12.94	13.86	14.78	15.70	16.62	17.55	18.47	19.39	20.31
20	23.53			4.39	5.31	6.23	7.15	8.07	8.99	9.92	10.84	11.76	12.68	13.60	14.52	15.44	16.37	17.29	18.21	19.13
21	24.71			3.21	4.13	5.05	5.97	6.89	7.81	8.64	9.56	10.48	11.40	12.32	13.24	14.16	15.09	16.01	16.93	17.85
22	25.88			2.04	2.96	3.88	4.80	5.72	6.64	7.57	8.49	9.41	10.33	11.25	12.17	13.09	14.02	14.94	15.86	16.78
23	27.06			.86	1.78	2.70	3.63	4.54	5.46	6.39	7.31	8.23	9.15	10.07	10.99	11.91	12.84	13.76	14.68	15.60
24	28.23				.61	1.53	2.45	3.37	4.29	5.22	6.14	7.06	7.98	8.90	9.82	10.74	11.67	12.59	13.51	14.43
25	29.41					.35	1.27	2.19	3.11	4.04	4.96	5.88	6.80	7.72	8.64	9.56	10.49	11.41	12.33	13.25
26	30.59						.09	1.01	1.93	2.86	3.78	4.70	5.62	6.54	7.46	8.38	9.31	10.23	11.15	12.07
27	31.76							.76	1.69	2.61	3.53	4.45	5.37	6.29	7.21	8.14	9.06	9.98	10.90	
28	32.94								.51	1.43	2.35	3.27	4.19	5.11	6.03	6.96	7.88	8.80	9.72	
29	34.12									.25	1.17	2.09	3.01	3.93	4.85	5.78	6.70	7.62	8.54	
30	35.29											.92	1.84	2.76	3.68	4.61	5.53	6.45	7.37	
31	36.47												.66	1.58	2.50	3.43	4.35	5.27	6.19	
32	37.65													.40	1.32	2.25	3.17	4.09	5.01	
33	38.82														.15	1.08	2.00	2.92	3.84	
34	40.00																.82	1.74	2.66	
35	41.18																	.56	1.48	
36	42.35																		.31	

Table No. 2

Cost of Cotton	Cotton Plus Waste	Price of Yarn																		
		Price of Yarn																		
		5% &	3% & .65 frt	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
12	14 12			43.58	44.50	45.42	46.35	47.27	48.19	49.11	50.03	50.95	51.88	52.80	53.72	54.64	55.56	56.48	57.40	58.33
13	15 29			29.46	30.38	31.30	32.23	33 15	34.07	34.99	35.91	36.83	37.76	38.68	39.60	40.52	41.44	42.36	43.28	44.21
14	16 47			28.29	29.21	30.13	31.06	31.98	32.90	33.82	34.74	35.66	36.59	37.51	38.43	39.35	40.27	41.19	42.11	43.04
15	17 65			27.11	28.03	28.95	29.88	30.80	31.72	32.64	33.56	34.48	35.41	36.33	37.25	38.17	39.09	40.01	40.93	41.86
16	18 82			25.93	26.85	27.77	28.70	29.62	30.54	31.46	32.38	33.30	34.23	35.15	36.07	36.99	37.91	38.83	39.75	40.68
17	20 00			24.76	25.68	26.60	27.53	28.45	29.37	30.29	31.21	32.13	33.06	33.98	34.90	35.82	36.74	37.66	38.58	39.51
18	21 18			23.58	24.50	25.42	26.35	27.27	28.19	29.11	30.03	30.95	31.88	32.80	33.72	34.64	35.56	36.48	37.40	38.33
19	22 35			22.40	23.32	24.24	25.17	26.09	27.01	27.93	28.85	29.77	30.70	31.62	32.54	33.46	34.38	35.30	36.22	37.15
20	23 53			21.23	22.15	23.07	24.00	24.92	25.84	26.76	27.68	28.60	29.53	30.45	31.37	32.29	33.21	34.13	35.05	35.98
21	24 71			20.05	20.97	21.89	22.82	23.74	24.66	25.58	26.50	27.42	28.35	29.27	30.19	31.11	32.03	32.95	33.87	34.80
22	25 88			18.87	19.79	20.71	21 64	22.56	23.48	24.40	25.32	26.24	27.17	28.09	29.01	29.93	30.85	31.77	32.69	33.62
23	27 06			17.70	18.62	19.54	20.47	21.39	22.31	23.23	24.15	25.07	26.00	26.92	27.84	28.76	29.68	30.60	31.52	32.45
24	28 23			16.52	17.44	18.36	19.29	20.21	21.13	22.05	22.97	23.89	24.82	25.74	26.66	27.58	28.50	29.42	30.34	31.27
25	29 41			15.35	16.27	17.19	18.12	19.04	19.96	20.88	21.80	22.72	23.65	24.57	25.49	26.41	27.33	28.25	29.17	30.10
26	30 59			14.17	15.09	16.01	16.94	17.86	18.78	19.70	20.62	21.54	22.47	23.39	24.31	25.23	26.15	27.07	27.99	28.92
27	31 76			12.99	13.91	14.83	15.76	16.68	17.60	18.52	19.44	20.36	21.29	22.21	23.13	24.05	24.97	25.89	26.81	27.74
28	32 94			11.82	12.74	13.66	14.59	15.51	16.43	17.35	18.27	19.19	20.12	21.04	21.96	22.88	23.80	24.72	25.64	26.57
29	34 12			10.64	11.56	12.48	13.41	14.33	15.25	16.17	17.09	18.01	18.94	19.86	20.78	21.70	22.62	23.54	24.46	25.39
30	35 29			9.46	10.38	11.30	12.23	13.15	14.07	14.99	15 81	16.83	17.76	18.68	19.60	20.52	21.44	22.36	23.28	24.21
31	36 47			8.29	9.21	10.13	11.06	11.98	12.90	13.82	14.74	15.66	16.59	17.51	18.43	19.35	20.27	21.19	22.11	23.04
32	37 65			7.11	8.03	8.95	9.88	10.80	11.72	12.64	13.56	14.48	15.41	16.33	17.25	18.17	19.09	20.01	20.93	21.86
33	38 82			5.93	6.85	7.77	8.70	9.62	10.54	11.46	12.38	13.30	14.23	15.15	16.07	16.99	17.91	18.83	19.75	20.68
34	40 00			4.76	5.68	6.60	7.53	8.45	9.37	10.29	11.21	12.13	13.06	13.98	14.90	15.82	16.74	17.66	18.58	19.51
35	41 18			3.58	4.50	5.42	6.35	7.27	8.19	9.11	10.03	10.95	11.88	12.80	13.72	14.64	15.56	16.48	17.40	18.33
36	42 35			2.40	3.32	4.24	5.17	6.09	7.01	7.93	8.85	9.77	10.70	11.62	12.54	13.46	14.38	15.30	16.22	17.15
37	43 53			1.23	2.15	3.07	4.00	4.92	5.84	6.76	7.68	8.60	9.53	10.45	11.37	12.29	13.21	14.13	15.05	15.98
38	44 71			.05	.97	1.89	2.82	3.74	4.66	5.58	6.50	7.42	8.35	9.27	10.19	11.11	12.03	12.95	13.87	14.80
39	45 88					.71	1.64	2.56	3.48	4.40	5.32	6.24	7.17	8.09	9.01	9.93	10.85	11.77	12.69	13.62
40	47 06						.47	1.39	2.31	3.23	4.15	5.07	6.00	6.92	7.84	8.76	9.68	10.60	11.52	12.45
41	48 23							.21	1.13	2.05	2.97	3.89	4.82	5.74	6.66	7.58	8.50	9.42	10.34	11.27
42	49 41								.88	1.80	2.72	3.65	4.57	5.49	6.41	7.33	8.25	9.17	10.10	
43	50 59									.62	1.64	2.47	3.39	4.31	5.23	6.15	7.07	7.99	8.92	
44	51 76										.36	1.29	2.21	3.13	4.05	4.97	5.89	6.81	7.74	
45	52 94											.12	1.04	1.96	2.88	3.80	4.72	5.64	6.57	
46	54 12												.78	1.70	2.62	3.54	4.46	5.38		
47	55 29														.52	1.44	2.36	3.28	4.21	
48	56 47															.27	1.19	2.11	3.04	
49	57 65																	.93	1.86	



Table No. 3

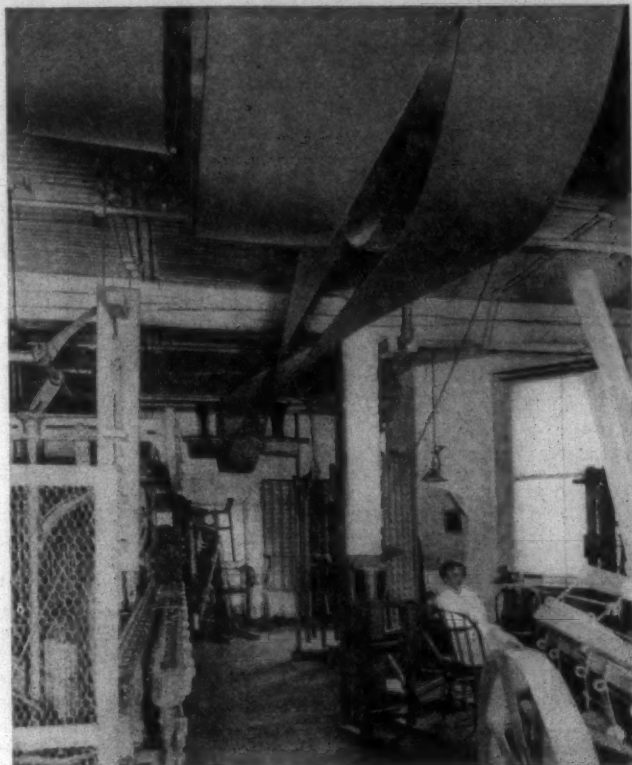
Cost of Cotton	Cotton Plus Waste	Price of Yarn		65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81															
		Price of Yarn																																	
		Less 5% & 3% & .65 frt																																	
12	14.12	59.25	60.17	61.09	62.01	62.93	63.85	64.78	65.70	66.62	67.54	68.46	69.38	70.31	71.23	72.15	73.07	73.99	45.13	46.05	46.97	47.89	48.81	49.73	50.66	51.58	52.50	53.42	54.34	55.26	56.19	57.11	58.03	58.95	59.87
13	15.29	43.96	44.88	45.80	46.72	47.64	48.56	49.49	50.41	51.33	52.25	53.17	54.09	55.02	55.94	56.86	57.78	58.70	43.96	44.88	45.80	46.72	47.64	48.56	49.49	50.41	51.33	52.25	53.17	54.09	55.02	55.94	56.86	57.78	58.70
14	16.47	42.78	43.70	44.62	45.54	46.46	47.38	48.31	49.23	50.15	51.07	51.99	52.91	53.84	54.76	55.68	56.60	57.52	42.78	43.70	44.62	45.54	46.46	47.38	48.31	49.23	50.15	51.07	51.99	52.91	53.84	54.76	55.68	56.60	57.52
15	17.65	41.60	42.52	43.44	44.36	45.28	46.20	47.13	48.05	48.97	49.89	50.81	51.73	52.66	53.58	54.50	55.42	56.34	41.60	42.52	43.44	44.36	45.28	46.20	47.13	48.05	48.97	49.89	50.81	51.73	52.66	53.58	54.50	55.42	56.34
16	18.82	40.43	41.35	42.27	43.19	44.11	45.03	45.96	46.88	47.80	48.72	49.64	50.56	51.49	52.41	53.33	54.25	55.17	40.43	41.35	42.27	43.19	44.11	45.03	45.96	46.88	47.80	48.72	49.64	50.56	51.49	52.41	53.33	54.25	55.17
17	20.00	39.25	40.17	41.09	42.01	42.93	43.85	44.78	45.70	46.62	47.54	48.46	49.38	50.31	51.23	52.15	53.07	53.99	39.25	40.17	41.09	42.01	42.93	43.85	44.78	45.70	46.62	47.54	48.46	49.38	50.31	51.23	52.15	53.07	53.99
18	21.18	38.07	38.99	39.91	40.83	41.75	42.67	43.60	44.52	45.44	46.36	47.28	48.20	49.13	50.05	50.97	51.89	52.81	38.07	38.99	39.91	40.83	41.75	42.67	43.60	44.52	45.44	46.36	47.28	48.20	49.13	50.05	50.97	51.89	52.81
19	22.35	36.90	37.82	38.74	39.66	40.58	41.50	42.43	43.35	44.27	45.19	46.11	47.03	47.96	48.88	49.80	50.72	51.64	36.90	37.82	38.74	39.66	40.58	41.50	42.43	43.35	44.27	45.19	46.11	47.03	47.96	48.88	49.80	50.72	51.64
20	23.53	35.72	36.64	37.56	38.48	39.40	40.32	41.25	42.17	43.09	44.01	44.93	45.85	46.78	47.70	48.62	49.54	50.46	35.72	36.64	37.56	38.48	39.40	40.32	41.25	42.17	43.09	44.01	44.93	45.85	46.78	47.70	48.62	49.54	50.46
21	24.71	34.54	35.46	36.38	37.30	38.22	39.14	40.07	40.99	41.91	42.83	43.75	44.67	45.60	46.52	47.44	48.36	49.28	34.54	35.46	36.38	37.30	38.22	39.14	40.07	40.99	41.91	42.83	43.75	44.67	45.60	46.52	47.44	48.36	49.28
22	25.88	33.37	34.29	35.21	36.13	37.05	37.97	38.90	39.82	40.74	41.66	42.58	43.50	44.43	45.35	46.27	47.19	48.11	33.37	34.29	35.21	36.13	37.05	37.97	38.90	39.82	40.74	41.66	42.58	43.50	44.43	45.35	46.27	47.19	48.11
23	27.06	32.19	33.11	34.03	34.95	35.87	36.79	37.72	38.64	39.56	40.48	41.40	42.32	43.25	44.17	45.09	46.01	46.93	32.19	33.11	34.03	34.95	35.87	36.79	37.72	38.64	39.56	40.48	41.40	42.32	43.25	44.17	45.09	46.01	46.93
24	28.23	31.02	31.94	32.86	33.78	34.70	35.62	36.55	37.47	38.39	39.31	40.23	41.15	42.08	43.00	43.92	44.84	45.76	31.02	31.94	32.86	33.78	34.70	35.62	36.55	37.47	38.39	39.31	40.23	41.15	42.08	43.00	43.92	44.84	45.76
25	29.41	29.84	30.76	31.68	32.60	33.52	34.44	35.37	36.29	37.21	38.13	39.05	39.97	40.90	41.82	42.74	43.66	44.58	29.84	30.76	31.68	32.60	33.52	34.44	35.37	36.29	37.21	38.13	39.05	39.97	40.90	41.82	42.74	43.66	44.58
26	30.59	28.66	29.58	30.50	31.42	32.34	33.26	34.19	35.11	36.03	36.95	37.87	38.79	39.72	40.64	41.56	42.48	43.40	28.66	29.58	30.50	31.42	32.34	33.26	34.19	35.11	36.03	36.95	37.87	38.79	39.72	40.64	41.56	42.48	43.40
27	31.76	27.49	28.41	29.33	30.25	31.17	32.09	33.02	33.94	34.86	35.78	36.70	37.62	38.55	39.47	40.39	41.31	42.23	27.49	28.41	29.33	30.25	31.17	32.09	33.02	33.94	34.86	35.78	36.70	37.62	38.55	39.47	40.39	41.31	42.23
28	32.94	26.31	27.23	28.15	29.07	29.99	30.91	31.84	32.76	33.68	34.60	35.52	36.44	37.37	38.29	39.21	40.13	41.05	26.31	27.23	28.15	29.07	29.99	30.91	31.84	32.76	33.68	34.60	35.52	36.44	37.37	38.29	39.21	40.13	41.05
29	34.12	25.13	26.05	26.97	27.89	28.81	29.73	30.66	31.58	32.50	33.42	34.34	35.26	36.19	37.11	38.03	38.95	39.87	25.13	26.05	26.97	27.89	28.81	29.73	30.66	31.58	32.50	33.42	34.34	35.26	36.19	37.11	38.03	38.95	39.87
30	35.29	23.96	24.88	25.80	26.72	27.64	28.56	29.49	30.41	31.33	32.25	33.17	34.09	35.02	35.94	36.86	37.78	38.70	23.96	24.88	25.80	26.72	27.64	28.56	29.49	30.41	31.33	32.25	33.17	34.09	35.02	35.94	36.86	37.78	38.70
31	36.47	22.78	23.70	24.62	25.54	26.46	27.38	28.31	29.23	30.15	31.07	31.99	32.91	33.84	34.76	35.68	36.60	37.52	22.78	23.70	24.62	25.54	26.46	27.38	28.31	29.23	30.15	31.07	31.99	32.91	33.84	34.76	35.68	36.60	37.52
32	37.65	21.60	22.52	23.44	24.36	25.28	26.20	27.13	28.05	28.97	29.89	30.81	31.73	32.66	33.58	34.50	35.42	36.34	21.60	22.52	23.44	24.36	25.28	26.20	27.13	28.05	28.97	29.89	30.81	31.73	32.66	33.58	34.50	35.42	36.34
33	38.82	20.43	21.35	22.27	23.19	24.11	25.03	25.96	26.88	27.80	28.72	29.64	30.56	31.49	32.41	33.33	34.25	35.17	20.43	21.35	22.27	23.19	24.11	25.03	25.96	26.88	27.80	28.72	29.64	30.56	31.49	32.41	33.33	34.25	35.17
34	40.00	19.25	20.17	21.09	22.01	22.93	23.85	24.78	25.70	26.62	27.54	28.46	29.38	30.31	31.23	32.15	33.07	33.99	19.25	20.17	21.09	22.01	22.93	23.85	24.78	25.70	26.62	27.54	28.46	29.38	30.31	31.23	32.15	33.07	33.99
35	41.18	18.07	18.99	19.91	20.83	21.75	22.67	23.60	24.52	25.44	26.36	27.28	28.20	29.13	30.05	30.97	31.89	32.81	18.07	18.99	19.91	20.83	21.75	22.67	23.60	24.52	25.44	26.36	27.28	28.20	29.13	30.05	30.97	31.89	32.81
36	42.35	16.90	17.82	18.74	19.66	20.58	21.50	22.43	23.35	24.27	25.19	26.11	27.03	27.96	28.88	29.80	30.72	31.64	16.90	17.82	18.74	19.66	20.58	21.50	22.43	23.35	24.27	25.19	26.11	27.03	27.96	28.88	29.80	30.72	31.64
37	43.53	15.72	16.64	17.56	18.48	19.40	20.32	21.25	22.17	23.09	24.01	24.93	25.85	26.78	27.70	28.62	29.54	30.46	15.72	16.64	17.56	18.48	19.40	20.32	21.25	22.17	23.09	24.01	24.93	25.85	26.78	27.70	28.62	29.54	30.46
38	44.71	14.54	15.46	16.38	17.30	18.22	19.14	20.07	20.99	21.91	22.83	23.75	24.67	25.60	26.52	27.44	28.36	29.28	14.54	15.46	16.38	17.30	18.22	19.14	20.07	20.99	21.91	22.83	23.75	24.67	25.60	26.52	27.44	28.36	29.28
39	45.88	13.37	14.29	15.21	16.13	17.05	17.97	18.90	19.82	20.74	21.66	22.58	23.50	24.43	25.35	26.27	27.19	28.11	13.37	14.29	15.21	16.13	17.05	17.97	18.90	19.82	20.74	21.66	22.58	23.50	24.43	25.35	26.27	27.19	28.11
40	47.06	12.19	13.11	14.03	14.95	15.87	16.79	17.72	18.64	19.56	20.48	21.40	22.32	23.25	24.17	25.09	26.01	26.93	12.19	13.11	14.03	14.95	15.87	16.79	17.72	18.64	19.56	20.48	21.40	22.32	23.25	24.17	25.09	26.01	26.93
41	48.23	11.02	11.94	12.86	13.78	14.70	15.62	16.55	17.47	18.39	19.31	20.23	21.15	22.08	23.00	23.92	24.84	25.76	11.02	11.94	12.86	13.78	14.70	15.62	16.55	17.47	18.39	19.31	20.23	21.15	22.08	23.00	23.92	24.84	25.76
42	49.41	9.84	10.76	11.68	12.60	13.52	14.44	15.37	16.29	17.21	18.13	19.05	19.97	20.90	21.82	22.74	23.66	24.58	9.84	10.76	11.68	12.60	13.52	14.44	15.37	16.29	17.21	18.13	19.05	19.97	20.90	21.82	22.74	23.66	24.58
43	50.59	8.66	9.58	10.50	11.42	12.34	13.26	14.19	15.11	16.03	16.95	17.87	18.79	19.72	20.64	21.56	22.48	23.40	8.66	9.58	10.50	11.42	12.34	13.26	14.19	15.11	16.03	16.95	17.87	18.79	19.72	20.64	21.56	22.48	23.40
44	51.76	7.49	8.41	9.33	10.25	11.17	12.09	13.02	13.94	14.86	15.78	16.70	17.62	18.55	19.47	20.39	21.31	22.23	7.49	8.41	9.33	10.25	11.17	12.09	13.02	13.94	14.86	15.78	16.70	17.62	18.55	19.47	20.39	21.31	22.23
45	52.94	6.31	7.23	8.15	9.07	9.99	10.91	11.84	12.76	13.68	14.60	15.52	16.44	17.37	18.29	19.21	20.13	21.05	6.31	7.23	8.15	9.07	9.9												

Table No. 4

Cost of Cotton	Cotton Plus Waste	Price of Yarn		82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
		Price of Yarn Less																				
		5% &	3% & .65 frt																			
				74.91	75.83	76.76	77.88	78.60	79.52	80.44	81.36	82.28	83.21	84.13	85.05	85.97	86.89	87.81	88.74	89.66	90.58	91.50
22	25.88			47.85	48.77	49.70	50.62	51.54	52.46	53.38	54.30	55.22	56.15	57.07	57.99	58.91	59.83	60.75	61.68	62.60	63.52	64.44
23	27.06			46.68	47.60	48.53	49.45	50.37	51.29	52.21	53.13	54.05	54.98	55.90	56.82	57.74	58.66	59.58	60.51	61.43	62.35	63.27
24	28.23			45.50	46.42	47.35	48.27	49.19	50.11	51.03	51.95	52.87	53.80	54.72	55.64	56.56	57.48	58.40	59.33	60.25	61.17	62.09
25	29.41			44.32	45.24	46.17	47.09	48.01	48.93	49.85	50.77	51.69	52.62	53.54	54.46	55.38	56.30	57.22	58.15	59.07	59.99	60.91
26	30.59			43.15	44.07	45.00	45.92	46.84	47.76	48.68	49.60	50.52	51.45	52.37	53.29	54.21	55.13	56.05	56.98	57.90	58.82	59.74
27	31.76			41.97	42.89	43.82	44.74	45.66	46.58	47.50	48.42	49.34	50.27	51.19	52.11	53.03	53.95	54.87	55.80	56.72	57.64	58.56
28	32.94			40.79	41.71	42.64	43.56	44.48	45.40	46.32	47.24	48.16	49.09	50.01	50.93	51.85	52.77	53.69	54.62	55.54	56.46	57.38
29	34.12			39.62	40.54	41.47	42.39	43.31	44.23	45.15	46.07	46.99	47.92	48.84	49.76	50.68	51.60	52.52	53.45	54.37	55.29	56.21
30	35.29			38.44	39.36	40.29	41.21	42.13	43.05	43.97	44.89	45.81	46.74	47.66	48.58	49.50	50.42	51.34	52.27	53.19	54.11	55.03
31	36.47			37.26	38.18	39.11	40.03	40.95	41.87	42.79	43.71	44.63	45.56	46.48	47.40	48.32	49.24	50.16	51.09	52.01	52.93	53.85
32	37.65			36.09	37.01	37.94	38.86	39.78	40.70	41.62	42.54	43.46	44.39	45.31	46.23	47.15	48.07	48.99	49.92	50.84	51.76	52.68
33	38.82			34.91	35.83	36.76	37.68	38.60	39.52	40.44	41.36	42.28	43.21	44.13	45.05	45.97	46.89	47.81	48.74	49.66	50.58	51.50
34	40.00			33.73	34.65	35.58	36.50	37.42	38.34	39.26	40.18	41.10	42.03	42.95	43.87	44.79	45.71	46.63	47.56	48.48	49.40	50.32
35	41.18			32.56	33.48	34.41	35.33	36.25	37.17	38.09	39.01	39.93	40.86	41.78	42.70	43.62	44.54	45.46	46.39	47.31	48.23	49.15
36	42.35			31.38	32.30	33.23	34.15	35.07	35.99	36.91	37.83	38.75	39.68	40.60	41.52	42.44	43.36	44.28	45.21	46.13	47.05	47.97
37	43.53			30.20	31.12	32.05	32.97	33.89	34.81	35.73	36.65	37.57	38.50	39.42	40.34	41.26	42.18	43.10	44.03	44.95	45.87	46.79
38	44.71			29.03	29.95	30.88	31.80	32.72	33.64	34.56	35.48	36.40	37.33	38.25	39.17	40.09	41.01	41.93	42.86	43.78	44.70	45.62
39	45.88			27.85	28.77	29.70	30.62	31.54	32.46	33.38	34.30	35.22	36.15	37.07	37.99	38.91	39.83	40.75	41.68	42.60	43.52	44.44
40	47.06			26.68	27.60	28.53	29.45	30.37	31.29	32.21	33.13	34.05	34.98	35.90	36.82	37.74	38.66	39.58	40.51	41.43	42.35	43.27
41	48.23			25.50	26.42	27.35	28.27	29.19	30.11	31.03	31.95	32.87	33.80	34.72	35.64	36.56	37.48	38.40	39.33	40.25	41.17	42.09
42	49.41			24.32	25.24	26.17	27.09	28.01	28.93	29.85	30.77	31.69	32.62	33.54	34.46	35.38	36.30	37.22	38.15	39.07	39.99	40.91
43	50.59			23.15	24.07	25.00	25.92	26.84	27.76	28.68	29.60	30.42	31.45	32.37	33.29	34.21	35.13	36.05	36.98	37.90	38.82	39.74
44	51.76			21.97	22.89	23.82	24.74	25.66	26.58	27.50	28.42	29.34	30.27	31.19	32.11	33.03	33.95	34.87	35.80	36.72	37.64	38.56
45	52.94			20.79	21.71	22.64	23.56	24.48	25.40	26.32	27.24	28.16	29.09	30.01	30.93	31.85	32.77	33.69	34.62	35.54	36.46	37.38
46	54.12			19.62	20.54	21.47	22.39	23.31	24.23	25.15	26.07	26.99	27.92	28.84	29.76	30.68	31.60	32.52	33.45	34.37	35.29	36.21
47	55.29			18.44	19.36	20.29	21.21	22.13	23.05	23.97	24.89	25.81	26.74	27.66	28.58	29.50	30.42	31.34	32.27	33.19	34.11	35.03
48	56.47			17.26	18.18	19.11	20.03	20.95	21.87	22.79	23.71	24.63	25.56	26.48	27.40	28.32	29.24	30.16	31.09	32.01	32.93	33.85
49	57.65			16.09	17.01	17.94	18.86	19.78	20.70	21.62	22.54	23.46	24.39	25.31	26.23	27.15	28.07	28.99	29.92	30.84	31.76	32.68
50	58.82																					



## Forty Years of Faithful Service



Here is a Ladew Flintstone that has been on the job forty years. Through all this long life of service it has carried the load in a textile mill where uninterrupted performance is a great consideration.

Edward R. Ladew Company, Inc., has been making leather belting since 1835, and today the name "Ladew" stands in the very front rank among the successful belting manufacturers of the world. This position, won by adherence to high business ideals which have placed the user's satisfaction first at all times, is being maintained in every department of the Ladew organization.

**Complete Stocks Carried at J. M. Tull  
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INCORPORATED

29 Murray Street, New York

## WHO'S WHO

A M O N G

### TEXTILE SALESMEN

#### WM. W. MOORE.

(Allis-Chalmers Mfg. Co.)

Wm. W. Moore, or Bill Moore, as he is usually called, was born at Cincinnati, Ohio, in February, 1896,

he graduated in one of the engineering departments.

During the World War he was First Lieutenant in the 307th Engineers and saw active service in France with the 82nd Division and made a very creditable record.

Returning to this country, he was employed for awhile by Lockwood, Greene & Co. as resident engineer, but about four years ago joined the sales organization of the Allis-Chalmers Manufacturing Company, of Milwaukee, Wis., with his headquarters at Atlanta, but devoting most of his time to the Carolinas.

When it was decided to open a Charlotte office he was placed in charge of same and because of his personality and salesmanship has been very successful.

Bill married an Atlanta girl and has one child. He is a member of the Charlotte Kiwanis Club and the Charlotte Country Club. He is rated as above the average among golf players.

The Allis-Chalmers Manufacturing Company is manufacturers of electric motors and steam turbines and do a large business with Southern mills.



WM. W. MOORE.

but has spent most of his life in Georgia.

He attended Georgia Tech, where

#### GEORGE B. SNOW.

(Atlanta Brush Co.)

Geo. B. Snow may wear his hat to keep from showing his bald head but he is one of the best salesmen

garrd by the mill men.

George was born at Carrollton, Ga., and lived upon a farm until he was twenty-one years of age and then tried running a small country store.

He later found a job as brakeman on a railroad train but he got put off, out in the woods, one day when he was dead-heading without his pass, so he quit the railroad and went into the transfer business in Atlanta.

When the D. D. Felton Brush Company, now the Atlanta Brush Company, was located in Atlanta about ten years ago, George got a job with them and proved to have such a measure of salesmanship that although their business has shown a remarkable growth he has been able to handle their sales successfully.

Because he was more than a salesman, George has, from time to time, been able to devise many brushes that have been added to the Atlanta Brush Company line and he has established their brushes in many industries beside the textile industry.



GEORGE B. SNOW.

on the road and there is certainly none that visit the textile mills of the South who are more highly re-

**Clark's Directory of Southern Textile Mills**  
Contains Complete data relative to Southern Mills  
Pocket Size Revised Twice Yearly

**CLARK PUBLISHING CO.**

CHARLOTTE, N. C.



## HOUGHTON

## PENETRATION

**T**HERE is much difference between the power possessed by various liquids to penetrate solids.

As an illustration; accurately measure a drop of one liquid and a drop of another. Place each drop upon a piece of paper of the same quality, and see to it that the paper lies perfectly level. It is thoroughly possible for one of these liquids to spread itself over an area several times larger than that over which the other will spread itself. While the test thus described is one of common practice it is not necessarily a certain test for penetration, for it may be possible that the paper used contains more or less of a filler or gloss and that property which permits a liquid to spread itself over the largest non-porous area is not necessarily the property which permits it to penetrate interiors, although there is some relation between the properties.

Let us take the process of decolorization of oils by filtration. In this process the oil is passed through columns of filtering material, usually Fuller's Earth or bone-black. That oil which penetrates best filters the easiest and with the least cost. But such an oil would cut a sorry figure if used in a textile softener, because it also parts very readily with its coloring matter which is fine carbon pigment in mineral oil and blood pigment in animal oils.

An easy filtering oil possesses the power to penetrate in itself, but it does not possess the power to carry anything with it in penetrating action.

The tendency of the yarn is to filter or strain, from the liquids mixed with the size, the solid ingredients in the size and leave them deposited on the surface. This is what causes all of the trouble in the conditioning process. It causes the warp to become brittle or pipy and break on the beam, and is the cause of not carrying the size through to the cloth.

The imparting to an oil the property of penetration is not a problem which is identical to the manufacture of a conditioner, for cotton goods, but enters more or less into all of the industries.

All case-hardened metal must be penetrated by carbon gases; wool must be penetrated by an oil in preparing it for the cards; leather must be penetrated by an oil in the currying process; silk must be penetrated by an oil or soap in the process of conditioning. But each of these processes of penetration carry with them some peculiar requirement identical to itself and to no other.

For instance with the preparation of wool, the oil must be a ready solvent for the natural greases of the wool, a corrector of electricity and scour readily. With leather the oil must penetrate into every crevice of the hide, lubricating the fibres and carrying with it a certain amount of solid matter such as stearine. Products which are in themselves oils at certain temperatures and which are readily soluble in oil in certain proportions.

But when it comes to conditioning cotton warps, the conditioner must carry through to the interior of the yarn, in a uniform manner, the starch, etc., which compose the size. It must not release the size by a filtration process and permit it to remain on the surface, neither should it release the size and permit it to ooze to the surface of the warp when the warp is under the tensile strength to which it is subjected on the loom.

Thus it may be comprehended that in a Warp Conditioner property of penetration plus the property of dissolving the size are desirable characteristics. And we might appropriately add, plus the property of staying put.

Thus it will be appreciated that the manufacture of oleagenous products for one industry is more or less related to the manufacture of those products for all industries and HOUGHTON'S WARP CONDITIONER is the final result of many years' experience in the manufacture of oils possessing soluble and penetrating proportions.

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*Oils and Leathers for the Textile Industry*



## ALL STEEL **ECONOMY** FIRE PROOF **CLOTH PRESS**

**HEAVY DUTY NO. 258  
PLATEN 50 x 36**

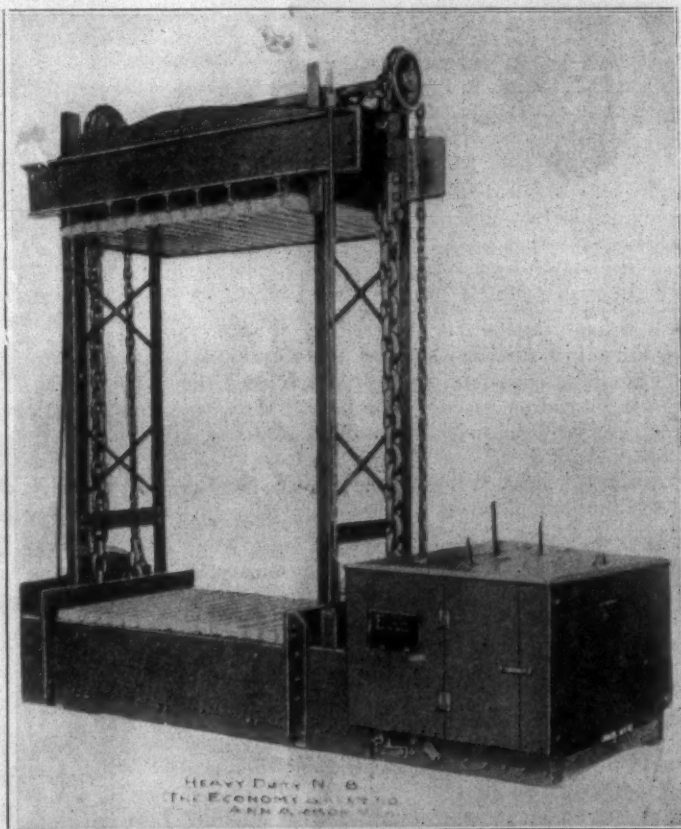
This Economy Heavy Duty Cloth Press, No. 258, has a platen 50 x 36 inches. Platen travel of 72 inches. Equipped complete with Direct Connected Electric Motor, capable of pulling up to 40 H. P. at highest torque.

Will develop pressure equal to toggle or hydraulic pressure rated at 150 tons pressure. Ample for Export or domestic baling for most mills or for compressing gingshams, etc.

Requires only about one minute of actual motor operation to make a Bale of Cloth.

The press is very fast, platen travel approximately eight seconds to the foot, up or down.

The most efficient Cloth Press on the market, barring none, sold at anywhere near the price at which the press is offered.



**The press is right. The price is right.**

One of the many advantages of this Economy Heavy Duty Cloth Press No. 258 is the fact that it maintains its maximum pressure indefinitely, until released. **Another feature** is the unlimited compressing platen stroke. In other words, platen will travel as low as is necessary to completely compress the bale, regardless of the third dimension, as the platen can go down to within four inches of compressing platform. Another feature is that the press is entirely self contained, requiring no cement foundation, pit, over head counter-shafting, chain connections, etc.

Chains are hand forged Swedish steel. Will stand over 50 per cent over load, a greater load than can be exerted by the motor pulling up to 40 H. P. torque.

Twenty-five years of experience in building Baling Presses, built on the same principle, have been concentrated on the development of this Cloth Press No. 258.

For particulars write

**ECONOMY BALER CO.**

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## *President Hammett Discusses Mill Situation*

Suggesting that the limit of daily fluctuations in the cotton market be reduced, and that a weekly limit be established, and that the government cease to issue numerous cotton crop estimates, James D. Hammett, of Anderson, delivered his annual address as president to the South Carolina Cotton Manufacturers' Association, in session at Spartanburg, last week.

Mr. Hammett also discussed taxes, the 48-hour law, the public attitude toward law enforcement and other interesting questions in his address, which, in the main, follows:

"Since the last annual meeting of your association the textile industry has been through a period of reasonable prosperity followed by a period of unpleasant depression, the period of depression continuing through the present date of annual meeting with manufacturers unable to determine on a proper policy to pursue. We, as Southern manufacturers, cannot assume that thirty cent cotton is too high when the farm labor is compared with the labor in industrial centers of other sections of the country, and have no disposition to have our friends of the farms furnish their labor at unremunerative prices, while labor in other lines is so profitably and pleasantly employed.

"It is not my purpose to enter into a discussion of the wage levels as they exist in various sections of the country, but rather to speak from a comparative standpoint, and to insist that the public must realize that cotton is no more to rule at starvation wages for those who produce it, and that the product of cotton must be advanced to a point where producer and manufacturer will receive a reasonable return for their labor and their investment. With more than half the population of the country engaged in agricultural pursuits, it is hardly to be considered that manufacturers and other commercial interests, together with labor in industrial centers, can be permanently prosperous without the farmer of the South, the West, the North and the East sharing in that prosperity. When the farmer produces more of a commodity than the world can consume the price will naturally be a low one, but where the commodity produced is barely enough to supply the needs of the world the price naturally must be on a high level. If that be an economic truth the world must adjust itself to the idea that cotton will continue on a level that, compared with prices of a few years ago, is high, because the commodity has not been produced in sufficient quantity to burden the world, though the acreage seeded to cotton was one of the greatest in world history.

### Cotton Exchanges.

"We believe the proper conduct of business, as well as agriculture, demands that exchanges where commodities may be bought and sold with reasonable safety should be continued, and their usefulness to the public broadened. We resent,

however, the violent and constant fluctuations we have experienced in recent years, and cannot but feel them only in the interest of the speculator, and without regard to the interest of the producer or consumer."

"Naturally it is difficult to control the factors who cause the violent fluctuations that do such violence to prices, and that to such a large extent demoralizes the business of the producer, the manufacturer, the converter, or finisher, and the merchant. Your president would suggest that our national government cease issuing so many estimates that carry weight because they are official and confine itself to the ginners' reports as issued at present, together with the consumption and stock figures as at present, and make no estimate, or guess, of the yield of cotton until December, when a reasonably accurate estimate may be made. We suggest to the exchanges, in a spirit that is entirely friendly, that daily fluctuations be confined to more reasonable limits, and that instead of a 200-point maximum fluctuation, a materially lower figure be the maximum, with, perhaps, a weekly maximum added. We believe the suggested changes on the part of the government and the exchanges would be in the interest of the producer, and consumer of cotton, and in the end in the interest of the exchanges.

### Textile Engineering.

"It would be far from the thought of any Southern manufacturer to detract in any way from the glory and credit for success that rightfully belongs to the native superintendent, overseers and section men of our mills. They have, through loyalty, intelligence, and diligence met the situation as it has existed in a manly, straightforward way and mastered the difficulties of manufacturing as these difficulties were presented to them. So long as we continue the manufacture of the less difficult weaves of plain cloths the untrained man will continue effective and valuable. We do feel, however, that competition, which grows more keen as the years pass, add to the fact that the finer and more difficult weaves are growing in importance, demands that more attention be paid to the training of men who may be able to master the more intricate difficulties in a more prompt and economical way than would be possible with the untrained man.

"Assuming this to be true, I strongly recommend that more interest be taken in textile engineering, and that we seek the opportunity to apply our experience towards making the textile engineering course in some of our colleges more effective. With the textile industry occupying such a conspicuous place in the industrial and social life of the State we feel it but just and in order that a department in one of the State colleges be made to truly represent the great industry which we represent, and to that end we



have the question up with the authorities of Clemson College. We do not wish boys entered into the textile department of the college because the course is considered an easy one, but rather wish to encourage boys to enter that department of the college life who have an ambition to successfully operate the mills, and who evidence a desire for proper and full information in the work they choose as their life work. Neither do we encourage every boy who enters the textile department to feel that with a diploma his competency is established. Rather we should encourage the idea that the diploma represents his theoretical knowledge, and that his practical knowledge must be attained by contact with the mill work, and then the measure of his success will depend on the diligence displayed together with the quality of leadership he develops.

"Quality rather than quantity in men is much desired. We sincerely hope much good will come from the consultation with the Clemson authorities, and that they be continued if agreeable to the college authorities, and if the college authorities really desire our co-operation with improving the textile department of the college.

#### Taxes.

"Your committee will give you a full report as to their activities. It is my purpose only to say that our taxes are becoming burdensome, with the disposition in many quarters to make them more burdensome. We, as an industry, strongly favor education, and good roads, two of the leading issues before the State, but we do not feel that everything said in the name of education or good roads should be accepted, as really in the true interest of these two great questions without giving the subject mature deliberation, and without considering the possibility of running the expense account of the State to such proportions as to seriously check the development of the schools and the roads. We favor proper roads, economically built, and while favoring the higher institutions of learning, and bespeaking for them reasonable support, we urge particular care and attention be given the grammar schools, and if financial considerations must reflect on any that it be not the grammar school that must suffer. We would not be understood as being other than intensely interested and friendly to the cause of education and good roads, but, frankly, advise against a policy that may prove to be burdensome, and cool the ardor of many friends of these worthy causes. In other words do not ride a good horse to death on the first day of the journey.

"The present sales tax at its present rate is not particularly burdensome, though questionable as to its justice. We feel this principle of taxation has great opportunities to do lasting harm to the interests of all kinds falling under its provisions already located in the State, and will have a tendency to discourage proposed industries entering the State. While the rate at present is not very harmful there is no assurance the rate will continue as at present.

"The income tax is an annoying and burdensome tax and works great hardship on the individual or corporation whose disposition to do

something in the world is most pronounced. While indisposed to attack the principles of an income tax, it cannot be overlooked that a tax on the industry of the individual or corporation is the result of an income tax, and a premium is placed on thriftlessness by the State. The income tax by the State is excessive as compared to neighboring States, and should be changed so as not to penalize one for living in the State.

#### Obedience to Authority.

"We, as business men, as well as individuals, cannot view with complacency a disposition that is evident in the State and in the home to resent the curtailment of the so-called personal liberty of the individual. Minimizing respect for constituted authority is causing uneasiness in the minds of vast numbers of the best thinking men and women of this country, and we as representatives of one of the greatest industries of the country cannot avoid assuming our proper position before society in establishing a proper regard for the moral and material welfare of the people as a whole. The World War is charged with much of the feeling of discontent, but we must come to realize the war is in the past, and yet conditions as to respect for the authority of those chosen to assume authority and respect for the organic law of the land does not appear to improve.

"There are many evidences of disregard for authority, and among them a disregard for the constitution of the United States. The constitution was written by men of great wisdom and under its provisions the people of this republic have been happy and prosperous, with life and property safe to those who wish to enjoy the privilege of living in a land where proper effort is rewarded and where the reward is protected under the organic law of the land to those whose diligence, intelligence and economy has permitted the accumulation of property. If the wild and unreasonable are to be permitted to destroy the bedrock foundation of our happiness, the lives and property of men and women will no longer be safe, and we will experience a period of anarchy that will spell disaster to the material, moral and spiritual welfare of all the people.

"To my mind, it is incumbent on us as business men representing large material interests to insist on a proper regard for constituted authority, and to lend our assistance in furthering that respect which will safeguard the interests we represent, and at the same time insure safety to the moral well being of our people. Certain amendments to the constitution are unpopular with many good people, and all the vicious people, and yet if we open the door by ignoring the organic law of the land in one of its provisions we may be sure an element of the population will take advantage of our indifference and assume to ignore other provisions of this law that are dear to us and necessary to our material as well as moral welfare.

#### Legislative Committee.

"This committee labored not in vain, and managed in a perfectly legitimate way to educate the people to a realization that corporations

(Continued on Page 28)

## Douglas Crown Starch

*evenly penetrates and gives  
a smooth pliable finish*



A thin boiling starch—absolutely uniform and equally as pure from foreign particles as the edible starch used in the home.

In addition to being manufactured by our special process, Douglas Crown Starch is finally bolted through silk in order to produce a finished starch absolutely uniform. The result is the most perfect working quality starch—a better starch cannot be made.

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(a refined thin boiling starch)

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# Healds and Their Application

The earliest known healds were simply a series of loops which carried all the odd threads all set at the bottom. These loops made both top and bottom shed alternately, the even warp threads being stationary in the center. Later the cross-looped healds came into use, and are still employed in India on native handlooms. Of course, in this style the warp threads are held fast in the crossing of top and bottom loop, so every six inches or so the weaver has to slacken the healds to take up the cloth. The fly shuttle loom, which came along later, having shuttle boxes, required healds with eyes—and in England the necessary healds were first made from worsted with a double knot by hand, and afterwards on half self-acting machines of Scotch design, in which a double knot was tied by hand on the center pin of the machine and the worsted then hooked on to the braiding needle. Worsted cannot be fastened unless two knots are tied, owing to the material being so elastic, nor will worsted take varnish satisfactorily.

A very big improvement was made when a man named Spedding, in conjunction with Bowlas, a Stockport engineer, invented the automatic noozed heald machine. This machine can knit healds to pattern by means of a dobby arrangement worked by lags and pegs. A peg stops the snatchbar from get-

ting hold, and prevents the eye from being formed. This machine is a wonderful piece of mechanism in its method of tying the knot to form the eye of the heald, and it is the backbone of the large heald-making business in Lancashire. The varnishing machines at present in use are also exceedingly effective machines, and coupled with the standardized methods of stove drying enable healds to be beautifully finished, smooth and glossy for good gaiting and the eye hard set for lasting. Healds when finished are something more than cotton, as it is found that the thread is absolutely saturated right to the core with varnish. At the bottom of these healds the two threads are separated, one lying at the front of the stave and the other at the back of the stave, but at the top both threads are on the same side of the stave, which causes the natural position of the eye to be at an angle of 45 degrees. This slight angle helps in weaving, as the space occupied by the eye is thereby reduced.

The way I define this angle is to say that the front portion of the eye is at the right-hand. Special healds are now being made to meet the requirements of the automatic drawing-in machine made by Barber and Colman, Ltd., which require the angle the opposite way, viz., the front portion of the eye at the left-hand side.

As regards the material employed in the manufacture of healds, the yarn is always Egyptian, and as a general rule the 40s, 50s and 60s are carded quality, and 70s and finer, combed quality. It is always doubled twice, the preparation being of 4, 5 or 6 ply; and three or four of these plies are put together in the finishing process to form 12, 15, 16, 18 or 20 fold finished yarn. I have given considerable thought to the determination of suitable heald yarns to employ for various setts, and a reasonable basis is the actual diameter of each sort of heald yarn. According to the Textile Manufacturer Year Book the diameter of cotton yarns equals V count X 1 over 26.1.

There are of course two threads forming a heald, and I have therefore multiplied the result mentioned above by two. It is found by numerous actual examples that healds are frequently made in which the whole space is occupied by the yarn, thus allowing no estimated space for the warp, and it might, I think, be taken as a maxim that twice the diameter of the actual heald yarn may be employed for weaves which require healds of as thick heald yarn as possible to be conveniently employed. Of course you will understand in this procedure no account is taken of the extra width of the heald at the eye. The above is for weaving fairly strong grey twist.

For fine grey twist, also for colored twist, some allowance must be made for weaving space. There is really no fixed rule in this matter of thickness of heald yarn, as the condition of different sheds apparently affects the question as regards gaiting or lasting. Also big changes in the weather make a difference, a very hot and dry spell sometimes necessitating a thinner heald yarn being employed than usual. The varnish is what is known as copal varnish, which consists of melted copal gum mixed with boiled linseed oil and turpentine. The turpentine is only a conveyor of the other parts, and dries off in the drying stoves. For foreign markets paint is applied to the eyes only. These healds are for weaving coarse twist, and require a very hard eye. The paint dries harder than varnish, hence its use for this purpose.

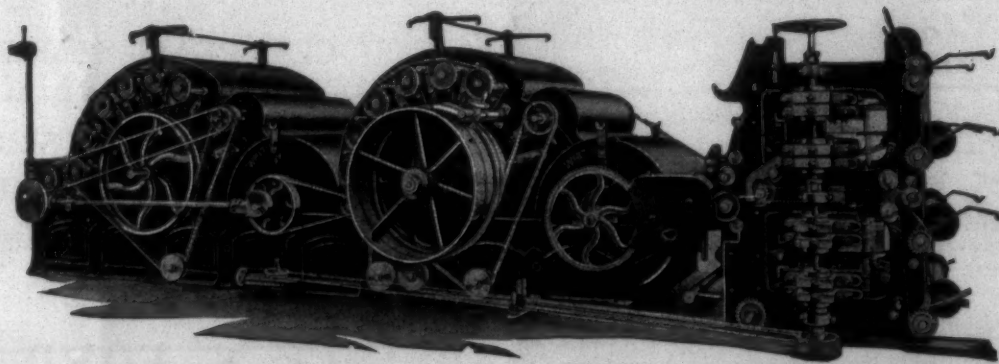
Noozed healds require a lot of skill and care in all their processes, or faults will creep in. Twisting is one fault fairly prevalent, and by this I mean the eye is not at its proper angle, but is twisted round to the back. The drawerin gets the healds straight whilst he is drawing-in by means of his drawing rods, but when these rods are withdrawn the heald twists round, and the warp is thereby twisted out of a straight line. This fault can be avoided by great care in the process

(Continued on Page 32)

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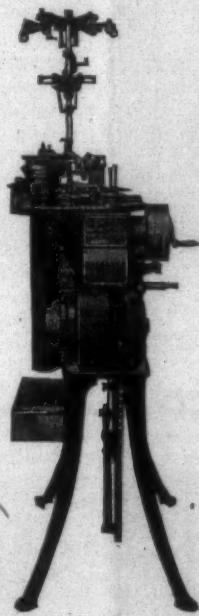
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## Knit Goods

### *Artificial Silk And Its Possibilities*

(By Bertrand R. Clarke, Vice-President Tubize Artificial Silk Company of America, before National Association of Cotton Manufacturers.)

New ideas in trade invariably arouse special interest. Chemistry, the magician of the present day, has developed a textile yarn called "artificial silk," which may briefly be defined as a yarn of high lustre, durability, and strength, composed of many filaments manufactured from chemically treated vegetable fibres, and resembling real silk in appearance, feel, and adaptability. While the first artificial silk was produced about thirty years ago in an effort to stimulate the product of the silk worm, it was more of a curiosity than anything else, and lacked many of the fundamental elements essential to commercial success. It was simply gun cotton softened by solvents and spun into threads, coarse, uneven, and highly inflammable. Its first introduction into fabric was met with suspicion by the manufacturer and danger to the public—so much so, that laws were passed forbidding its manufacture and sale. Chemistry was not idle, however, and soon a method was discovered whereby all attendant danger was eliminated, and the yarn made even more adaptable to the textile trade; today, its consistently uniform performance and its popularity in the trade have become so firmly fixed that it is regarded by many as the most versatile textile yarns in the world.

Variations of the original methods and process have been introduced by each newcomer in the field; but the resulting yarns are all fairly similar in appearance, even though present-day yarn is produced from wood fibre as well as cotton. Inherent in the yarn of each individual manufacturer, however, are certain features which should be thoroughly understood by the weaver or other producer of finished materials in order to obtain the best results, and price should never be the first requisite in its purchase. Suitability for results desired should be the prime consideration. As an example, yarns made by different methods will react in entirely different ways in the dye bath. Yarns produced from cotton as a base have greater tensile strength than those produced by another process, using a different vegetable fibre. I will not attempt to analyze the various properties of different yarns and qualities of thread, since they present problems to be solved by each individual manufacturer, according to his personal needs.

Its phenomenal spread and growth can be easily visualized from the fact that it is only a matter of a decade since the first small packages of artificial silk were imported to this country by one of our prominent mercantile banking houses. These silky, creamy, white yarns of high lustre were described in the early Trade Journals as representing the latest activities of chemical experts in France, Belgium, and

Switzerland. At first they were viewed as a curiosity and were passed around the trade with laughter. Experiments were made, however, by knitters and weavers of ribbons and broad silks. It is frankly admitted that the first efforts were far from successful, and artificial silk left much to be desired. It was lustrous, to be sure, but was lacking in strength, dyed unevenly, was not very uniform in size, and was harsh and brittle. Today, it is lustrous or soft in tone, according to requirements; its tensile strength is from 10 to 60 per cent greater than the best of warp cotton; it dyes evenly and will absorb any shade of the rainbow; it is very uniform in size, is soft and warm to the touch. It comes in skeins of many thousands of yards, and can be wound in any form, or used in the looms as either warp or filling; it is durable and lasting, apparently unaffected by Old Father Time.

Contrast, if you please, the age of the silk industry from its establishment in China thousands of years before the Christian Era. Likewise, compare the development of wool and worsted. Of almost equal age and antiquity, are the linen and cotton industries. Against these ancient and wonderful arts compare the new "textile wonder" and realize that within our own lifetime chemistry has created a product which only last year was destined to surpass in volume, by a wide margin, its original antecedent—silk. The answer is found in the fact that artificial silk is so adaptable that it can be used in countless ways, where the price of real silk makes it prohibitive. Other factors which have contributed toward its growth are its stability in market price and its dependability in the hands of manufacturers. It can be used in combination with real silk, as it were, "To paint the lily," because of its life and snap. Last, but by no means least, it is produced at home, by our own people, creating beautiful garments and fabrics within the price reach of our own enormous buying public.

The knitting trades accepted artificial silk yarns rapidly. Hosiery men first used it in combination with cotton as a plate; then underwear and knitted cloth manufacturers entered the field. Mills which acted as pioneers in the early days soon found they were giving their customers something entirely new, and that it was not substitution but embellishment that resulted from its use. In looking over figures of consumption, year by year, in so far as they are available, it is evident that the knitting trade, in which is included knitted piece goods, sweaters, neckwear, underwear, and the like, has been the largest user. The hosiery trade follows, and then the weaver of broad goods. The cotton industry ranks well on the list, but



its field has not been so diversified as it is bound to become, when experiments and methods for utilizing our yarn are better understood.

Artificial silk is so comparatively new a textile, and its growth has been so rapid that manufacturers of yarn have been unable to keep pace with the development of new uses for the product. You gentlemen of the National Association are far more competent to create new ideas than we are. You have your own trade to develop and you are constantly on the alert to keep abreast of the times. We cannot create for you, but we can help you to create by assisting with every means in our power and by helping to solve the problems you wish simplified. We are only too glad to work with you, and to feel that we are a part of your various organizations, because we can supply you with a part of the raw material from which you work; and I am quite sure that every manufacturer of artificial silk yarn in the United States is just as willing as my company is to give you the results and solutions of various problems which we have encountered in the trade. Manufacturers of cotton linings for dresses, suits and overcoats, for example, are just beginning to utilize artificial silk in decided quantities. The results obtained in the form of satins with cotton backs, and also in taffetas and other like materials give excellent wear, are beautifully lustrous, and are, of course, reasonable in price. Sport satin, produced from mercerized cotton and artificial silk, was a most remarkable material and one which gained popular favor "over night." It is coming back, I hear, chiefly in those materials produced from the finest counts of both cotton and artificial silk.

You are undoubtedly most interested in knowing whether artificial silk yarns can be profitably incorporated into your own divisions of the textile industry. This is partly covered by reference to branches of trade in which artificial silk is now being used as an auxiliary and supplement to plain and mercerized cotton yarns. The ribbon trade is a striking example. This trade now uses great quantities of artificial silk. Laces, curtains, braids, upholstery fabrics, millinery cloths, necktie materials, glove cloth, metals, shoe coverings, all represent classes of textiles in which cotton yarns have long stood as important manufacturing factors. Now the field is proving it can be further advanced by the introduction of artificial silk yarns which embellish and add to the value of the finished product, and it seems that the solution on the part of every manufacturer, in this process of evolution in textile usages, would be for cotton yarn spinners, and weavers of cotton goods, to consult the manufacturers of artificial silk yarns and to work with them in developing their own products, just as the silk industry has done in the past ten years.

There are few, if any, silk manufacturers in the United States today who are not making some use of artificial silk yarn. Those of you gentlemen who have already experimented in the use of our product will, I think, agree with me that those who have produced combina-

tion fabrics have taken decided steps toward better and more profitable business. If this be true, and I believe it is, the course for cotton yarn users seems already clearly charted. An instance of another new field just beginning to open up for artificial silk is disclosed by braiders and covered wire manufacturers. Its lustrous sheen and clear, deep coloring make it a perfect covering for lamp cords, telephone wires and similar materials. As an insulator and covering for fine magnet wires, it has no superior when properly treated and applied.

Its development in the shirting trade is a matter familiar to you all, and the number of cotton cloth mills now using artificial silk to produce fancy shirtings, shirtwaist fabrics, and novelty dress fabrics is exceedingly small as compared to the total number of mills making these goods. There is no barrier to prevent your making use of artificial silk in a host of ways not yet attempted. Those who have gone farthest in their experiments often become enthusiastic enough to say that it is like true gold working into any textile combination, just as gold, the "King of Metals," will work with any alloy. Wherever you introduce a thread of artificial silk into any fabric, the fabric profits; it adds a touch of life and elevates the standard from the commonplace. Such a hand-maiden to the textile trade cannot help but gain recognition in your field and it is significant that artificial silk, finding its way into the textile trade as a direct substitute for silk, has now won a place of its own where it is used in every variety of combination with every known basic material to create marvelous fabrics impossible of achievement otherwise.

There seems to be a general impression that artificial silk will not stand up when wet or during a washing process. It is true that our product loses tensile strength while wet, but the same strength immediately returns when dry. If properly washed, with no more care than should be given to any delicate textile or fabric, it will wear and give excellent satisfaction. Artificial yarns of different manufactures have different degrees of strength, some yarns being far stronger when both dry and wet than others. I know of no better way to answer the man who says artificial silk will not do this and will not do that, when wet, than to say that my own company's product is today being extensively used in the manufacture of women's delicate underwear, without adulteration by any other textile; and that it is also being used in combination with other yarns by one of the largest umbrella covering manufacturers in the United States.

If you will pause to consider for a moment, you will realize that probably all of you gentlemen are clothed with every one of the known basic matter of cotton, wool, linen, silk, and leather. I am willing to wager that 90 per cent of you also wear artificial silk in some article of apparel. In a short time the daily attire of not 90 per cent of you, but of all of you, will contain artificial silk, either as a fabric by itself or as a component part of most of your attire.

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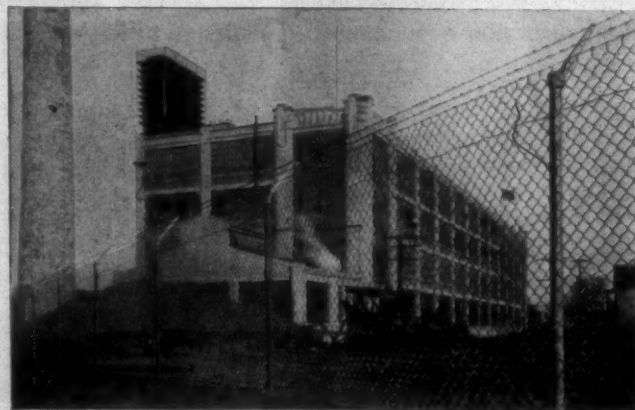
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## Sizing

The sizing of cotton goods, as now practiced, is one of the most unscientific processes with which the manufacturer has to deal.

In the process of weaving, the wear and tear on the warp by the pulling action of the healds on the one hand and the wearing action of the shuttle passing across the threads, on the other, is much greater than in the case of the weft, and sizing is introduced with the view of increasing the strength of the warp. The process of sizing is very old, since the ancient Oriental nations dressed their warps with rice water. The method first adopted in Lancashire was simply to pass the threads of warp through some adhesive matter such as flour paste, when, on drying, the extra strength required for the warp to pass through the loom was obtained; but a harsh feel was imparted to the cloth. Later, tallow or oil was added to the flour or starch paste, to give the desired softness, and this mixture is quite satisfactory as regards the manufacture of the fabric. But it was found that some kinds of size and modes of mixing made the woven fabric appear fuller and better, and thus there was and is ample scope for the skill and ingenuity of the sizer.

The problems which the manufacturer must solve are rather complicated. First, he must produce grey cloth of specified pattern and of a certain length, width and weight. Then the cloth must possess an appearance and handle equal to some standard.

Sometimes the problem is to make grey cloths of specified dimensions, weight and appearance, with as little cotton as possible. The remainder of the weight, feel and general appearance of the fabric must then be supplied by the size, which under these conditions is usually a complicated compound.

Sizing materials may be divided into four classes, namely:

- (1) Substances giving adhesive properties to the size. — wheaten flour, sago, maize and rice starches, farina, soluble starch.
- (2) Materials used to give weight and body to the size and yarns. — China, clay, magnesium sulphate or chloride.
- (3) Oily or greasy matters used for softening the size and yarn. — Tallow, olive oil, glycerine, paraffin, Japan wax.
- (4) Antiseptics. — Chloride of zinc, carbolic acid, formaldehyde.

In regard to the application of the size, the slasher has several advantages over the ball sizer, while on the other hand the advantages of ball sizing over slashing are mainly restricted to considerations of weighting. Slashing in conjunction with the self-stopping beaming machine is a very finished operation in contrast with the clumsy business of ball sizing and the expensive beaming necessitated by it; but for certain classes of goods ball sizing is quite indispensable. Whenever a "pure" cloth is required, however, the superiority of the slashing machine is very apparent.

In the preparation of the mixing, the importance of careful weighing

and measuring is not sufficiently recognized. Some imagine that a little more or less of this or that ingredient cannot make much difference in a large mixing, but this is quite wrong, for there is hardly any operation where correct and careful weighing and measuring is of greater importance.

With regard to the nature of the "mixing," everything depends on the class of work. For a "pure" cloth or for printing cloths, nothing more is required than flour or starch, and tallow. For printing cloths, chloride of zinc is not only unnecessary but would interfere with the operations of the printer.

The quality of the ingredients used in sizing is not sufficiently taken into account, and consideration is often only given to the price. This is not true economy.

The methods practiced by sizers are very variable, this being due to the absence of a reasonable system based upon a simple investigation of what will best fulfil the object in view. Such a system, of course, involves a knowledge of the properties of the different substances used.

In some otherwise modern works the process of sizing is still carried on in a very crude manner, and chemical substances and secret preparations are added to the size without any good reason. In the sizing of cloth intended for bleaching and dyeing, particular care should be taken in the selection of the sizing materials.

Much trouble to the bleacher and dyer is caused by magnesium chloride, zinc chloride and paraffin wax. Magnesium chloride is a valuable addition in sizing yarn, as it is hygroscopic, and keeps the yarn in good condition for the weaver, who has less breakage and consequently a greater production. It is, however, a most dangerous substance in cloths that require to be singed. Zinc chloride is often added to sizing materials to prevent mildew. It should be replaced by formaldehyde whenever cloth is to be singed to avoid the same trouble as when using magnesium chloride. Whenever zinc or magnesium is used in sizing its presence should be declared by the manufacturer and the goods could then be washed before singeing, or the singeing process should be omitted altogether. Paraffin wax is unsaponifiable, and is difficult to remove during bleaching.

Relatively few mills realize the lack of uniformity which attends the sizing process. Under the conditions imposed by the incompleteness of the average sizing equipment, uniformly good results are impossible.

Suitable equipment, great cleanliness and careful control are absolutely essential to the production of uniform work. The size house should be as clean as a kitchen, as preparing size uniformly, so far from being a crude operation, requires great cleanliness and careful attention to details. Considering how easily the consistency of starch either in its manufacture or in its use, is affected by slight chemical or bacterial action, the degree of cleanliness usually exercised in the



cistern room is insufficient. Any size left in the cisterns will affect a subsequent mixing. Cisterns and agitators need frequent scraping, flushing and cleansing to ensure uniform results in the sizing process.

The dry starch should be stirred into water and strained through a sieve on its way to the boiling cistern. The breakage of threads on the slasher due to the presence of chips, insoluble lumps and other foreign matter is thus avoided.

Rust spots and stains are generally due to insufficient cleaning of the cistern or its fittings. The chemical action of caked and putrifying size on a susceptible metal is rapid. Iron cisterns are a costly economy. Tinned or galvanized iron is better, but copper is the best.

Wood is largely used for cisterns. The shape of the cistern is usually wrong, the corners of the wooden cisterns making proper agitation impossible. Unless wooden cisterns are frequently renewed, the wood becomes impregnated with bacteria, which exert a thinning action on the mixings. Cisterns ought to be fitted with tight covers, as the difference in viscosity of the mixtures due to condensation or evaporation is appreciable, and may be sufficient to affect the weaving quality of a warp.

All cisterns ought to be fitted with efficient agitators. The usual two-paddle one-way agitator is defective as it revolves the size instead of thoroughly mixing it, with the result that the starch paste is not homogeneous, but contains globules or lumps of starch. Sets of agitator arms moving in opposite directions give a mixture of uniform consistency, break up the lumps, bring every part of the mixture into contact with the maximum heat, and lessen the accumulation of cakes of size on any part of the cistern or agitator arms.

The method of heating the mixture in the cistern is important as regards the uniformity of the results. Small jacketed cisterns constitute the only satisfactory arrangement for small plants.

Many mills have plenty of cisterns and plenty of slashers but defective pipe connections. A small outlay for extra piping and valves, to connect every cistern with every slasher, would allow of any kind of mixing desired to be run on to any slasher. The piping ought to be of copper or brass, and of ample size. Iron piping means a run of rust spots at some time or other.

It is practically impossible to size uniformly with a gravity system of conveyance from cisterns to size boxes. In any gravity system, the size has time to cool and gelatinize in some section of the piping. If this cold size sticks and has to be blown out by steam, the result is a run of thinned size and before the jelly lumps that blow out can be boiled up, they are likely to form hard spots on the yarn. A pumping system avoids these troubles. No pumping system, however, is complete unless the piping admits of constant circulation of the size from the cisterns through the pipes past the tap of each slasher and back again to the cisterns. Then the size is delivered at a uniform heat and viscosity. If a long curve dip is given to the main pipes beside each

box, all possibility of disturbance from cold size in the short branch pipe can be avoided.

A useful arrangement of piping found in a few mills is one in which all size left in the size boxes at night can be pumped back to the cisterns, leaving the boxes empty to be flushed and cleaned, but in many mills no such arrangement is available, and the size is left in the boxes overnight. It would be a saving in weaving expense to throw this size away, as the skin that forms in contact with the air is useless. With a complete circulation and pumping arrangement for the whole piping system, the boxes and the cisterns can be flushed with hot water and steam, and cleaning made part of the routine operation of the sizing plant.

Size that is boiled up a second time is not efficient as freshly prepared size. Reboiling impairs the adhesiveness, a fact that doubtless explains the feeling of some operatives that letting size stand overnight makes it smoother in feel in the morning. Where size must be left overnight, mixing it in the morning with a freshly prepared and heavier mixing is the best expedient.

An important factor in uniform sizing is the height of the size in the box relative to the squeezing rollers. Regulation of this is generally left to the vigilance of the slasher attendant, but there should be an automatic float-feed which keeps the size at a practically constant level. In mills where there are no such devices, the size gets low in the box, and it is the custom to keep lowering the immersion roller instead of constantly running in more size. But it is not merely the depth of the immersion roller in the size that determines the amount of size taken up by the yarn, but also the dip of the squeezing rollers into the size.

The weight and condition of the squeezing rollers also greatly influence the amount of size taken up by the yarn and the degree of penetration. Too careful attention to the condition and lapping of the cloth on the rollers cannot be given, streaks and badly-sized spots readily being caused by poor lapping.

The usual cylinder drying slashing has defects that have led to the adoption in France, and to some extent in England, of improved forms of air drying apparatus, utilizing modern principles of forced ventilation; and these developments are worthy of close investigation. Briefly, the new system is said to give greater production, dry the yarn progressively, reduce the tension to a minimum, retain the original roundness of the thread, largely do away with the defect of baking the ends, automatically cool the drying chambers during stoppages, and better the room conditions.

The substitution of air for cylinder drying is an important factor in assisting uniform work. It is extremely difficult to regulate the heat on cylinder dryers. Stoppages or slow runs generally mean hard and streaky sized places when cylinders are used, entailing damage to the threads when they are pulled apart at the least rods, difficulty in the loom and an uneven feel in the

(Continued on Page 26)

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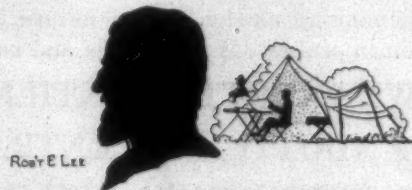
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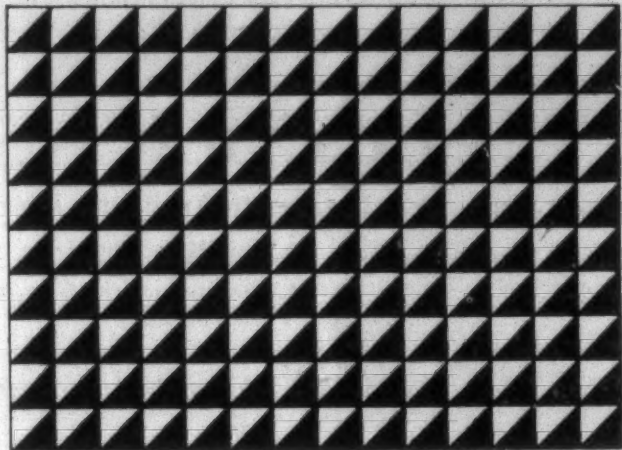
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the only ones benefited were their makers, they would soon wear themselves out and go off the market.

But since the rule "once a user always a user" with rare exceptions remains true when applied to these Wyandotte Products, then it must be true that the user of these products is also benefited, and, too, in like measure to the amount he pays for these materials.



If you are not a user of these unusual products, write us for further particulars or that you are willing to be "shown."

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#### Whitin Machine Works Buy Mill.

Boston.—According to notices posted in the plant of the Whitinsville, Mass., the plant has been sold to the Whitinsville Machine Works. Transfer will be made on or before April 1, next. The plant, which employs about 250 operatives, is engaged on the manufacture of sateens and sheetings.

The purchase price is understood to have been somewhat in excess of \$500,000. The transfer includes one large three-story mill and two smaller two-story buildings, besides a one-story building used as a picker building. There were included in the deal also the boarding house, which accommodates seventy, and about one hundred mill tenements, besides 400 acres of land, with water rights.

The mills will go on a schedule of 40 hours a week until the transfer is effected. It is expected that the mill machinery and stock, which is not included in the sale, will be sold in bulk as opportunity offers.

#### Southern Spindle & Flyer Co. Has Fine Record.

From fifteen hundred square feet floor space in 1900 to fourteen thousand square feet in 1923; from a very small investment to a corporation with a capital of \$155,000; from one man and a helper to a force of seventy employees, is the story in a few words of the growth and development of the Southern Spindle & Flyer Company. When the Southern Spindle & Flyer Company first began business they occupied a room 30x50 feet. Their machinery equipment consisted of but two machines. As the business grew they put in additional machinery. Soon these quarters became too congested and crowded. Then it was that they doubled the size of the building to 30x100 feet.

As the business grew this building was supplemented by others until now they occupy over fourteen thousand square feet of floor space, they have just completed a building 50x120 feet of modern fireproof construction. With this new addition to their plant together with new machinery added, they have more than doubled their capacity, which places them in a position to give a quicker and more efficient service to their patrons.

The position occupied by the Southern Spindle & Flyer Company is unique in many respects. Organized for the purpose of meeting the demands of the Southern cotton mills, they have accomplished this purpose to a surprising degree. This company not only has the distinction of being the first organized in the South for the repair of steel rolls, spindles and flyers of all kinds, picker lap pins, but it also enjoys the distinction of having been the first concern in the South to manufacture spindles, steel rolls, top rolls and flyer pressers and lifting rods, and is the only concern in the South manufacturing them today.

The Southern Spindle & Flyer Company specialize in the aligning and leveling of shafting, rearranging, overhauling and erecting, and moving spinning and card room machinery, employing in this depart-

ment alone fifteen crews, and are recognized as the largest overhaulers in their special line in the country. William H. Monty, president, and his associate, W. H. Hutchins, vice-president and secretary, have brought about them as fine a type of mechanics as can be found in any organization. They have been trained in the plant for the skilled work they are doing. They are well educated, making good wages and are good citizens.

The Southern Spindle & Flyer Company is doing a wonderful work and the most modern equipment has been installed for expediting this work. They have electric welding machine for welding together steel and iron bars, and an acetylene welding outfit used on parts that cannot be welded by the electric welding machine.

The Southern Spindle & Flyer Company is a concern that the mills can depend on in time of trouble, to go to their mills, hunt out the ills and weaknesses in the machinery, overcome these troubles, repair the defective parts, prolong the life of the machines and increase productions.

#### Carolina Cotton Mills Appeal Against Tax Classification.

Richmond, Va.—Whether or not machinery in its plant at Fieldale, Va., should be classed for taxation as capital invested in business or as real estate is the point at issue in a case pending in the Virginia Supreme Court of Appeals brought up from the Circuit Court of Henry county by the Carolina Cotton and Woolen Mills Company. The case was taken under advisement by the appellate court following argument which was heard last week. It may be several months before a decision is given.

It appears that although the company's machinery was included along with its plant when assessment of real estate was made at the regular quinquennial period in 1920, the examiner of records subsequently conceived the idea that the machinery should be assessed as capital invested in business, the upshot being that in 1922 machinery valued by him at \$686,685 was reported as omitted capital for the two previous years, and the company was assessed accordingly. In its petition filed in the Supreme Court, the company asserts similar machinery in other manufacturing plants in Henry county has been assessed only as real estate.

The petition recites further that the examiner of records had no authority to assess the machinery as omitted capital for 1920-1921. "That the machinery is real estate there can be no doubt," the petition goes on to say. "The evidence of witnesses shows that the machinery assessed as capital is securely attached to the buildings in which it is located and cannot be removed therefrom without serious damage to the buildings, and is intended to be and is a part of the buildings, essential to the purpose for which the buildings are occupied."

The company asks that the alleged erroneous assessment be corrected and that additional money it has to pay by reason of the assessment be refunded.



**Tolhurst Friction Clutch Pulleys.**

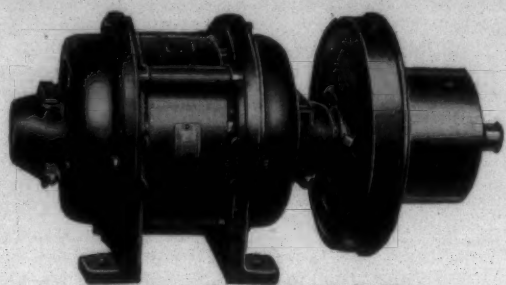
The new Tolhurst friction clutch pulleys, made by the Tolhurst Machine Works, Troy, N. Y., are proving of much interest to textile mills.

These friction clutch pulleys are described by the manufacturers as follows:

"The Tolhurst friction clutch pulley for countershaft drive is simple

tractor and countershaft belts. With the elimination of belt slippage, belting is saved and reserve horsepower, used only during the starting period, is kept to the minimum.

"The Tolhurst extractors illustrated above are equipped with automatic safety guards. These guards positively prevent access to the basket while the extractor is in operation.



**Tolhurst Motor Clutch Pulley.**

in construction and easy to install on your present extractors. The clutch pulley replaces the driving pulley. Slow or rapid acceleration is easily obtained by a simple adjustment in the clutch itself. The belt may be shifted directly from the loose to the tight pulley. The

"Fitted with the Tolhurst clutch pulley a standard stock motor will start the extractor smoothly and rapidly without belt-slip or the usual heavy inrush of current.

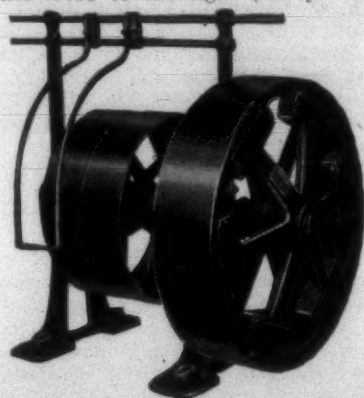
"The clutch is so proportioned to both motor and Extractor that not only may smaller motors be used, but complicated starting equipment and specially wound motors are unnecessary.

"Initial costs are low. Maintenance and fixed charges are reduced to the minimum, for should motor trouble develop, repair parts are easily, quickly and cheaply obtained—costly shutdowns are eliminated.

"The motor is conveniently started by push button located on the side brace of the extractor, operating a magnetic switch. This equipment may be replaced by a hand operated knife switch if desired.

"Clutch pulleys are furnished separate or with the motor and starting equipment, the latter consisting of a remote controlled and push button operated magnetic switch.

"Guards may be interlocked positively with power circuit so that the extractor cannot be started until the guards are closed—nor the guards opened until the extractor has come to a full stop.



**Tolhurst Counter Shaft Clutch Pulley.**

time formerly taken by the operator in nursing the belt onto the tight pulley can be profitably used elsewhere. The clutch gradually applies the load to the power system. It does away with belt-slip on both the ex-

**Japanese Spinning Firm to Enlarge Antung Mill.**

Washington.—The Antung factory of a large Japanese spinning company is planning a big increase in its waste Tussah yarn and Tussah noil output, and extensive additions to its plants and equipment are being carried out, according to a report from Consul William R. Langdon at Antung, China, to the textile division of the Bureau of Foreign and Domestic Commerce.

The enlarged plant and living quarters of operatives will cover areas of 4,752 and 3,564 square yards, respectively. The extension work is being undertaken by a local construction company at a cost of \$115,000, which sum is being supplied by the head office of the company in Japan.

The work is expected to be completed and the new machinery installed by the end of the present year and increased operations are planned for the early part of next

year. Between 1,800 and 1,900 persons will be employed in the enlarged factory.

**Belgian Knitting Industry.**

Brussels, Nov. 6.—The Belgian knitting industry has made considerable headway during the last few months. It is understood that the articles produced here on rotary machines and also on machines which are not quite so elaborate, give entire satisfaction.

In fact, the Belgian papers are full of advertisements from foreign firms who are willing to take the sole agency in various districts. Silk jumpers, golf coats and scarfs and even traveling tailors are produced here in large quantities.

Mixed yarns, known here as "metis," have met with a great favor. Colored combinations have been put on the market and practically all shades are worn. It is supposed that the present fashion on colored jumpers or on knit garments will last till after this winter.

## Why a Morse Silent Chain

The Morse silent chain is used because of its superiority based on the design of the exclusive "rocker-joint" construction, the very highest grade of material and heat treatment, the extreme accuracy in manufacturing and the engineering assistance in the designing of textile drives by engineers trained in this particular line and backed by the long standing reputation of the MORSE CHAIN COMPANY.

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One of the leading construction engineers in the country in specifying the sub-flooring for a huge cotton mill, insisted that it come up to the standard of Creo-Pine Sub-Flooring—produced by the Southern Wood Preserving Company.

Engineers are generally recognizing the fact that Creo-Pine is the *standard* sub-flooring. Many mill owners are insisting upon it in new construction programs.

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**Sub-flooring**

**Southern Wood Preserving Co., Atlanta, Ga**  
**Creosoting and Creo-pine Products**



# SOUTHERN TEXTILE BULLETIN

Member of Audit Bureau of Circulations

Published Every Thursday by  
**CLARK PUBLISHING COMPANY**  
Offices: 39-41 S. Church St., Charlotte, N. C.

**THURSDAY, NOVEMBER 15, 1923.**

DAVID CLARK  
D. H. HILL, JR.  
JUNIUS M. SMITH

Managing Editor  
Associate Editor  
Business Manager

## SUBSCRIPTION

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Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

## ADVERTISING

Advertising rates furnished upon application.  
Address all communications and make all drafts, checks and money orders payable to Clark Publishing Company, Charlotte, N. C.

### Clark's Yarn Manufacturing Margin Tables.

The average yarn mill manager is either careless or inefficient in the matter of determining his yarn costs and in an advancing cotton market he is apt to lose sight of the increased cost of waste and the increased selling commissions.

As the efficient manager has to compete with the sales of the man who does not realize his costs, anything that can be done to educate the inefficient manager will assist all yarn manufacturers.

With that purpose in view we have with a great deal of labor and expense prepared Clark's Yarn Manufacturing Margin Tables and are publishing in this issue those dealing with weaving yarns.

When a mill sells weaving yarns they must deduct, from the selling price, 5 per cent commission, 3 per cent discount and freight (averaging about 65 cents) in order to get the net returns.

Thus on a sale 55 cents the mill gets 50.03 and subject to a small variation in freight that figure is fixed.

When a mill buys cotton they must add a certain amount to cover waste and experience has shown that it is not safe for a yarn mill to allow less than 15 per cent. Some simply add 15 per cent to the price but it is proper to consider that 100 pounds of cotton will produce 85 pounds of yarn which gives a different waste figure from simply adding 15 per cent.

With cotton at 35 per cent the cost of cotton per pound of yarn will be found to be 41.18.

Subject to a slight variation in waste that figure is fixed just as much as the net returns above.

If a mill sells 20-2 yarns at 55 cents they get 50.03 cents net and if they buy cotton at 35 cents their cotton cost per pound is 41.18 cents. 50.03 minus 41.18 equals 8.85 cents. 8.85 is therefore their manufacturing margin, that is, the amount left for the payment of wages, salaries, supplies, power, taxes, depreciation, in fact everything except commissions, discounts, freight and waste.

As very few mills can produce 20-2 yarns today with a labor cost of less than 6.5 cents the above figure based upon today's yarn and cotton prices does not show enough manufacturing margin to cover actual cost and yet many mills are selling at 55 cents, believing that they are able to at least break even.

Referring to Clark's Weaving Yarn Manufacturing Tables on pages 8 and 9 the price of cotton is the first column on the left with cost of cotton per pound of yarn in the second column.

Across the top are yarn prices with the net returns (prices less commissions, discounts and freight) immediately below.

If a mill is offered a certain price for yarn they can find that price along the top row of figures and find their cotton price at the left. Going down from the yarn price and across from the cotton price they meet in a square that contains the manufacturing margin.

In August, with cotton at 24 cents, mills were selling 20-2 at 37 cents.

Under 37 in the table and across from 24 will be found the figure 5.22, which was the manufacturing margin and shows that yarns were being sold in August without enough margin to cover the wages, not to mention power, salaries and other overhead.

When selling on a close margin and needing business mills are prone to guess that they can break even rather than make the calculations that show a substantial loss.

With Clark's Yarn Manufacturing Margin Tables before them the "manufacturing margin" can be quickly obtained for any price of yarn and cotton and any mill should know what manufacturing margin is required to cover their costs.

We are printing the tables for weaving yarns in this issue and next week will print the tables for hosiery yarns as their net returns are determined from "5 and 2 and 2 and freight instead of 5 and 3 and freight, as in the case of weaving yarns.

These tables will be printed on card board and sent to every yarn mill in the South.

We are glad to bear the labor and expense if through these yarn tables we can assist in getting the yarn manufacturing business of the South upon a better basis.

### Demand for Goods Bears Little Relation to Price of Cotton.

A mill manager said to us this week, "I do not see how cotton can advance when there is such a small demand for goods."

We heard similar statements when cotton was 22 cents and we have heard them all the way up, but the price of cotton has continued to advance and the demand for goods and yarns, while not good today, is better than when cotton was 22 cents.

It is difficult for most men to realize new conditions or adapt themselves to them and the man who does not think tries to judge new situations by his experiences with old ones.

Because the mills have never faced a situation when cotton could not be obtained mill men talk of times when a scarcity was predicted but did not occur.

Only by cleaning the farms of uncultivated cotton the result of many years' accumulation did we avoid an actual scarcity last summer and even then there were dozens of mills that were idle for a few days because they could not get the character of cotton they needed.

Norman, Mayer & Co., who made an end of September estimate of 10,700,000, have reduced their estimate to 9,657,000 bales.

Watkins Bureau have reduced their estimate of 10,829,000 bales to 9,782,000.

W. Arthur Shelton, who was almost alone in his early estimate of 9,700,000 bales, now places that figure as the maximum possibility.

Should the crop prove to be 9,750,000 bales we would have the following situation:

Aug. 1, 1923, carry-over	2,500,000
1923 crop	9,750,000
Total supply	12,250,000
Smallest amount to which Aug. 1, 1924, carry-over could be reduced	1,000,000

Available for mills	11,500,000
Anticipated consumption	12,600,000

Necessary curtailment 900,000  
These figures do not take into consideration the 450,000 bales that will be needed for August, 1924, consumption.

Under such circumstances we are facing unusual conditions and the sooner the mills realize, that for this year at least, the demand for goods and the price of goods, bear no relation to the price of cotton, the better it will be for them.

The supply is so far short of demand that supply will exert the greatest influence.

### The Hand of Death.

A few weeks ago we enjoyed a visit of more than an hour to the office of Jas. H. Maxwell in Greenville and inducing him to talk of his career, he told us much of his early experiences.

Less than three weeks ago F. B. (Dad) Ferris, the oldest textile

salesman in the South, paid us a pleasant visit and expressed his appreciation of the Who's Who sketches we have been running.

Yesterday, as it were, our friends were with us but now the hand of death has touched them and they have passed on.

We selected them for two of the first of our Who's Who Among Textile Salesmen sketches because they were not only among the oldest of the textile salesmen but because of the fact that by their character and clean business methods they had set an example for the younger salesmen.

They have passed but behind them they have left records of which any man might be proud.

As we chronicle the death of these men we are reminded that although we follow different routes through life we all must eventually come to the same point.

Just as Jas. Maxwell and Dad Ferris lay for a few moments face to face with death and then passed on, so must each of us stand face to face with death and in that greatest of all moments most of us would like to stand with as clear a conscience as our two friends.

A superintendent passing through a mill pulls a few fibers from a tuft of cotton and did he spend hours and days combing and caring for those fibers while he neglected the hundreds of bales passing through the mill we would call him a fool.

And yet, life compared to eternity is but as the few fibers are to a year's output of a million spindle mill.

We do not stop to think and while we comb and try to straighten our few little fibers and do things that we should not do, we come to the point recently reached by Jas. Maxwell and Dad Ferris and then too late we will realize that our vision was wrong and our mountains of importance were but specks of triviality.

Two good men and two textile salesmen who were an honor to the fraternity have passed and as they laid down their grips and embarked on that journey from which they will never return they left us memories and inspirations.

### 1923 Health and Happiness Number.

Next week we will issue as a supplement to our November 22nd issue our 1923 Health and Happiness Number containing more than 300 pages of illustrated sketches of Southern cotton mills.

There will not only be views of the mill buildings but of schools, churches, community houses, playgrounds, etc., and it will be well worth keeping.

On account of the very large expense of printing this edition we will not be able to supply copies except to our subscribers and only to those whose subscriptions are paid to date of the issue of this number.

We know from experience that many will write for copies after it is issued but we wish to state now that the only way to obtain a copy is to pay your subscription before November 22nd.

In 1919 we issued a similar Health and Happiness Number but the 1923 Number exceeds that of 1919 both in size and beauty.



## Personal News

Ira Bishop, of Selma, Ala., has located in Shortleaf, Ala.

H. Lee Dearman has resigned as overseer carding and spinning at the Paola Mills, Statesville, N. C.

G. L. Chapman has been appointed superintendent, Woodstock Mills, Anniston, Ala.

G. R. Roberts has been appointed overseer carding and spinning at the Bowen-Crews Mills, Athens, Ga.

E. W. Bradley, of Charlotte, has become overseer spinning at the Paola Mills, Statesville, N. C.

Jesse Coker has resigned as superintendent of the Utilization Plant of the Indian Head Mills, Cordova, Ala.

W. M. Wofford has been promoted from card grinder to second hand in card room, High Shoals Cotton Mills, High Shoals, N. C.

J. C. Coggins, of Mooresville, N. C., has accepted the position of overseer carding at the Paola Cotton Mills, Statesville, N. C.

W. S. Moore has resigned as overseer carding and spinning at the Red Springs Cotton Mills, Red Springs, N. C., and accepted a similar position at the Cheraw Cotton Mills, Cheraw, S. C.

### F. B. Ferris Dead.

F. B. Ferris, probably the oldest textile salesman in point of service, died at Guthrie, Oklahoma, on Saturday, November 10th, and was buried at Charlotte on Thursday, November 15th.

"Dad" Ferris came South as salesman for a ring traveler firm in 1877 and had been on the road continuously since then.

He joined the forces of the Charlotte Supply Company in 1891 and eight years later helped organize the



F. B. FERRIS

Textile Mill Supply Company, and in 1911 helped launch the Charlotte Manufacturing Company, the only card clothing manufacturing plant

in the South. Mr. Ferris devoted a considerable portion of his time to the Texas territory and enjoyed a large business from that section.

For some time he had desired to retire and was financially well able to do so, but the Textile Mill Supply Company and the Charlotte Manufacturing Company found it difficult to fill his place and through loyalty to his firms he continued on the road.

At the time of his death he was president of the Charlotte Manufacturing Company and vice-president of the Textile Mill Supply Company.

With a wonderful personality "Dad" Ferris made friends easily and mill men looked forward to his calls with much pleasure.

He was a clean competitor who pitched his salesmanship upon a high plane.

### The Carders' Meeting.

The Carders' Division of the Southern Textile Association is going to hold a very interesting meeting at Charlotte on Wednesday, December 5th.

There will be a morning and an afternoon session, with a lunch at which the Charlotte men will stage an interesting program of entertainment.

Blanks will be sent out in a few days for the records of tests that are to be made.

Among the tests will be the determination of the variation in the length of laps.

J. O. Corn, of Columbia, S. C., is and will preside over the Charlotte chairman of the Carders' Division meeting.

### Hanes Head of Underwear Men.

Utica, N. Y.—Establishment of a statistical division of the Associated Knit Underwear Manufacturers of America, adoption of a new constitution and by-laws fixing new dues, and nominations of P. H. Hanes, Jr., of the P. H. Hanes Knitting Company, Winston-Salem, N. C., as president, were chief features of the opening session of the semi-annual convention attended by 200 members on Thursday.

Destruction of 24 cotton mills operating 900,000 spindles in the recent earthquake in Japan was given as one of the chief reasons for the erratic tendency in the cotton market by Edward T. Pickard, head of the textile department of the United States Department of Commerce.

Four names for men's undergarment models were announced. They are: "Knitgard," "Knitathletic," "Semiletic" and "Zepherized." "Knitgard" applies to men's quarter sleeve, sock-length leg; "Knitathletic" describes knitted athletic cut sleeveless loose knee-length garments; "Semiletic" is a sleeveless sock-length garment for summer wear, and "Zepherized" means bleached material exclusively for summer wear, absorbing perspiration to a greater degree than unbleached material.

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COUPLINGS

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# MILL NEWS ITEMS OF INTEREST

**Lincolnton, N. C.**—The Melville Manufacturing Company, No. 2, has awarded contract to the Bahnson Company, Winston-Salem, N. C., for complete humidifying equipment.

**Arcadia, S. C.**—Lockwood, Greene & Co., engineers of Charlotte and Boston, are designing and supervising complete sewerage and water works system for the Arcadia village near Spartanburg, S. C.

**McKinney, Texas.**—At a meeting of business men plans were discussed for the erection of another big cotton mill. McKinney business men are expected to take the bulk of the stock and they will be asked to subscribe to a fund of \$300,000 as a starter.

**Jackson, Miss.**—The work which Lockwood, Greene & Co., engineers of Atlanta, Ga., and Boston, Mass., are doing for the cotton Mill Products Company, of Jackson, Miss., consists of motorizing an engine driven mill and installing a new lighting system.

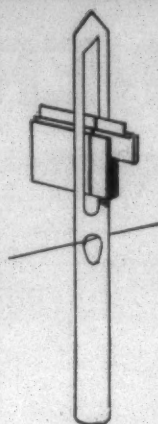
**Danville, Va.**—Officials of the Riverside and Dan River Cotton Mills have announced that production of certain departments would be indefinitely curtailed. Only departments manufacturing coarser goods will be affected.

Employees will work half time. It was not announced how many employees would be affected. Unfavorable market conditions was given as the cause. The Riverside and Dan River Cotton Mills employ about 5,000 operatives.

**Thomaston, Ga.**—The Thomaston Cotton Mills will erect a large bleaching plant near the site of the present cotton mill, it is announced. This new plant will cost \$500,000 and will employ several hundred helpers. Bleaching and sheets will be the main output. About one-half of the products of the mill will be completion of fabrics from Thomaston and Peerless Mills.

A water system with a capacity of 10,000,000 gallons is being erected to supply the plant. A pumping station of 2,000,000 gallons daily flow is nearing completion on Potato Creek, about a mile from Thomaston. Advertisements for expert white and colored labor are appearing.

**Abbeville, S. C.**—The annual stockholders' meetings of the Abbeville Cotton Mills was held last Friday and a dividend of three and a half per cent declared. All officers and the board of directors were re-elected. President A. A. Hatch, G. H. Milliken, H. A. Hale and W. E. Winchester attended the meeting from New York. They came in a special car and had as their guest Victor Montgomery, of Spartanburg, President Hatch, H. A. Hale and Victor Montgomery attended the pageant at Due West last Friday afternoon before the party left for Gainesville, Ga.



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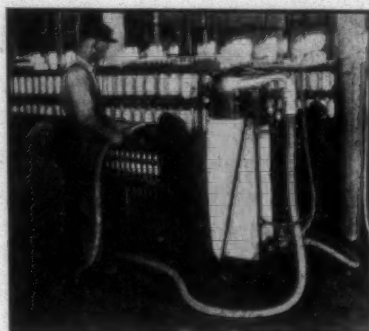
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**Anderson, S. C.**—A fire in the motor room of the Orr Mills burned the big ropes that run the machinery. This rope is used instead of belts, and the mill will be closed down until the ropes can be duplicated, which the management says will be about two or three days.

The sprinkler system was turned on and the damage from water was considerable. It is not known yet just what the damage will amount to.

**Hogansville, Ga.**—Lockwood, Greene & Co., engineers of Atlanta, Ga., and Boston, Mass., announce the incorporation of an unusual feature in the design of the plant of the new Stark Mills, Hogansville, Ga., which is being erected under their supervision. The central air conditioning apparatus is located at the top of the building directly over the spinning room instead of being located in the basement, which is the usual practice. The new location effects a considerable saving in construction cost because the larger ducts which carry most of the conditioned air run a relatively short distance. A further saving is effected by the elimination of expensive construction in the basement to provide the necessary housing for the humidifying and washing equipment in that location.

**Dunn, N. C.**—The looping plant of the Durham Hosiery Mills here has been closed and the machinery is being shipped to Durham. The plant was discontinued because of poor business, according to the management. It was opened in 1920, when manufacturers were overrun with orders. Soon thereafter, the business slump came, and while the plant has been operated continuously since it was first started it has been a losing venture, it is understood.

When the plant was opened the company had in mind the erection of a large plant in Dunn, but owing to adverse business conditions, it was found advisable to not expand the business. Sam B. Ferrell was manager of the plant here, and will go to Durham, where he will be associated with the same company.

**Laurens, S. C.**—At the annual meeting of the stockholders of the Laurens Cotton Mills, presided over by Senator N. B. Dial, president of the company, the resignation of J. W. Todd, Sr., as a director, was accepted and his son, Albert C. Todd, was chosen to fill the vacancy on the board.

The other members of the board were re-elected in the directors session held subsequently. The executive officers of the company were re-elected as follows:

N. B. Dial, of Laurens, president; F. J. Hale, of Boston, vice-president; W. S. Montgomery, of Spartanburg, treasurer and general manager; W. L. Smith, of Laurens, assistant treasurer.

The usual semi-annual dividend of three and a half per cent was



declared as of December 20, and will be payable December 31.

The amount of the dividend to be paid will be \$36,750. The New York and Boston party traveling in a special car after attending the Laurens mill meeting, left for Abbeville where they visited Gainesville, Ga., on a like mission.

**Spartanburg, S. C.**—The Pacolet, Spartan, Whitney and Gainesville Mills declared semi-annual dividends payable January 1, 1924, in each case. Earnings for the past six months have been exceptionally good.

Spartan Mills declared 4 per cent on the \$2,000,000 of common stock. Pacolet declared 5 per cent on \$2,000,000 common stock and 3½ per cent on \$2,000,000 preferred. Gainesville declared 4 per cent on \$490,000 of common stock and 3 per cent on \$353,000 preferred. Whitney paid 3½ per cent on \$599,300.

**Spartanburg, S. C.**—The Franklin Process Spinning Mills, Inc., recently incorporated under the laws of Delaware, and which a short time ago purchased the Cohanett Mills near here, will manufacture cotton yarns and knit covers, according to L. W. Jones, treasurer.

The output of the spinning mills will be taken by the Franklin Process Company and the Southern Franklin Process Company. The knit covers are used in dyeing processes by the Franklin Companies.

Mr. Jones explained that the new company was simply formed to purchase the Cohanett Mills and operate them so that the already established Franklin Companies may have their cotton yarns and knit covers manufactured in one of their own plants.

The spinning mills will have the same officers as the Franklin Process Company, as follows: E. S. Graves, president; L. W. Jones, treasurer, and W. A. Traver, secretary.

**Chattanooga, Tenn.**—Production is being increased as rapidly as possible at the new plant of the Dixie Spinning Company, which was placed in operation for the first time a few weeks ago. The plant is now operating at about 75 per cent of its capacity. As soon as the organization is built up a night shift is to be put on, an official stated.

The Dixie Mercerizing Company, an allied industry, will go after the mercerized yarn business of several additional Latin-American countries, shortly after the first of the year, it has been announced. The company is planning to add just such additional business as can be

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handled direct without the brokerage charge, which, it is declared, would make the business unprofitable. The mercerizing company is taking all of the yarn produced by the Dixie Spinning Company. While the company has provided for additional units, nothing is being considered at the present time.

#### South Carolina Mill Dividends.

Spartanburg, S. C.—Dividends aggregating \$301,124 were declared by directors of four mills meeting here. The dividends are payable January 1, 1924.

Directors of Spartan Mills met this morning and declared a dividend on \$2,000,000 stock, all of which is common.

A five per cent dividend was declared by the directors of Pacolet Manufacturing Company on the mill's common stock of \$2,000,000 and a 3½ per cent dividend on the preferred stock of the same amount.

Directors of the Gainesville, Ga., mills voted a dividend of four per cent on \$480,000 common stock, and a 3 per cent dividend on \$350,000 preferred stock.

#### Textile School in North Carolina.

The textile department of the North Carolina State College, which is the textile school of North Carolina, opened up with a registration of 160 day students. These students were from all sections of the South but principally from North Carolina. Foreign countries are also represented—China, Japan, Hawaiian Islands and India.

The Textile Building will be enlarged during the coming year and new equipment will be added which will consist of additional machines for carding, spinning, weaving and dyeing. An important addition will be an experimental laboratory, which will be equipped with all the latest machines for testing textile fabrics.

Plans for the new addition to the building are being prepared by J. E. Serrine & Co., of Greenville, S. C.

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must be one that for simplicity with great capacity and economy in maintenance produces uniformly such conditions that may be determined for the different requirements of the work. In the American Moistening Company's method of humidifying, all such requirements are GUARANTEED.

#### Our COMINS SECTIONAL HUMIDIFIERS

Our FAN TYPE and HIGH DUTY HUMIDIFIERS

Our VENTILATING Type of Humidifier (Taking fresh air into the room from outside)

Our ATOMIZERS or COMPRESSED AIR SYSTEM

Our COMPRESSED AIR CLEANING SYSTEM

#### Our CONDITIONING ROOM EQUIPMENT

Our AUTOMATIC HUMIDITY CONTROL (Can be applied to systems already installed)

Our AUTOMATIC TEMPERATURE CONTROL

Are all STANDARDS OF MODERN TEXTILE MILL EQUIPMENTS.

### AMERICAN MOISTENING COMPANY

RUSSELL GRINNELL, President

BOSTON, MASS.

FRANK B. COMINS, General Manager

SOUTHERN OFFICE, Atlanta Trust Company Building, ATLANTA, GEORGIA



# TALLOW—OILS—GUMS—COMPOUNDS

TEXTOL, A new product especially for Print Cloths. A complete warp size, requires no addition of tallow



TRADE MARK

Tallow, Soluble Grease, Soluble Oils, Gums, Glues, Gum Arabol, Lancashire Acme Size, Waxes, Finishing Pastes, Soaps, Glycerine, Ready-made Heavy Size, Sago and Tapioca Flours, Dextrines, China Clay, Soluble Blue, Bone Grease, Bleachers' Blue.

SPECIAL COMPOUNDS FOR WARPS, WHERE STOP MOTIONS ARE USED.

WEIGHTING COMPOUNDS FOR COLORED AND WHITE WARPS. FINISHING COMPOUNDS FOR ALL CLASSES OF FABRICS.

The Arabol best grades of cotton warp sizing compounds make the "finest weaving and will hold the fly."

These compounds are based on the best practical experience and the best materials used in their manufacture.

## The Arabol Manufacturing Co

Offices: 110 East 42nd St., New York, N. Y.

P. D. JOHNSON, Georgia Representative, Atlanta, Ga.  
Southern Agent: Cameron McRae, Concord, N. C.

STEPHEN ARLEIGH, South Car. Representative, Greenville, S. C.  
HERBERT BOOTH, Tenn.-Ala. Representative, Chattanooga, Tenn.



Factories: Brooklyn, N. Y.

### Sizing.

(Continued from Page 19)  
cloth. The use of automatic appliances to reduce the steam heat in the cylinders is a help, but even then the heat retained by the metal surfaces of the cylinders tends to bake the yarn. In the new drying machines, quick cooling of the drying chambers during stoppages is easily effected.

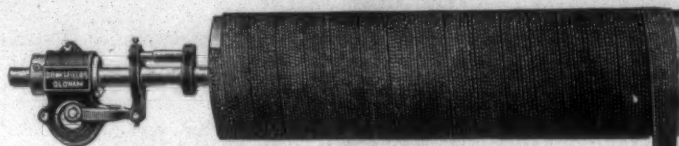
New products should be tried only after a chemical test has shown some probability of their usefulness. Many a manager has trusted to the supposed infallibility of a practical test in the mill, whereas a sizing test is infallible only if it is a very painstaking detailed test; which is seldom the case.

With proper equipment, known materials, and tests that really give the necessary information, the sizing process can be put on as exact and dependable a basis as any other process in textile manufacture.—W. H. Whewell, in Journal of Society of Dyers and Colorists.

### Sees Textile Industry as Great Field for Research.

London.—"The cotton industry has not used to the full the immense power bestowed on this generation by scientific discoveries," declared Dr. A. E. Oxley, physicist to the British Cotton Industries Research Association, in a lecture on "The Physicist in the Textile Industry," recently given before the Institution of Electrical Engineers in London.

Dr. Oxley declared the textile industry offered an almost entirely



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"The New Flexible"

"Needs no 'Damping'"

Stocks in  
Boston and  
the South



PLIABLE  
YET  
TENACIOUS

Guaranteed 'A' Quality—the Only Quality we Make

Used the wide world o'er and recognized by every race as the

### Standard Card-Grinding Medium



Supplied by Principal  
Supply Houses  
or

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unexplored field for the research physicist and problems sufficient for a brigade of physicists. There was no industry so much in need of co-operation with the physicist as those in the textile group.

Producing a specimen of cotton pod grown under glass in Manchester, Dr. Oxley explained the manufacturing processes it underwent, and in offering illustrations of the assistance of scientific method he said that one of the most important qualities of spun thread was its evenness or regularity. Hitherto the spinner had used the primitive method of taking a thread and winding it on a card, and the test of regularity was that of looking at the patchiness of the yarn. Recently they had been taking photographs of the regularity and tracing variation under high magnification. Another useful device had been provided in the oscillating stresses machine. It had been found that any thread could be broken by sufficient oscillation.

"I think there is no machine of the cotton trade," concluded Dr. Oxley, "which cannot be improved, and if you think of the enormous number of processes through which the cotton has to pass and the labor entailed in handling the material you realize that if one or two of these processes could be eliminated it would mean millions and millions to England." It was by a combination of efforts between scientists and the operatives that a trade of such vast importance to England and the world would remain with England.

Manufacturers of Speeders, Skewers, Warp Bobbins, Filling Bobbins, Cap Spinning Bobbins, Northrop Loom Bobbins, Twister Bobbins, Twister Spools, Warper Spools, Comber Rolls, Quills, Underclearer Rolls (plain or covered).

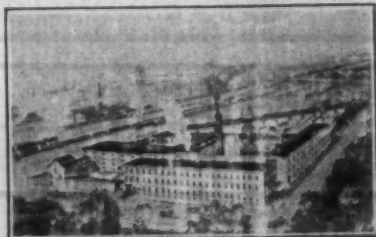
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PROVIDENCE, R. I.

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We make a specialty of Shuttles for all makes of looms, both plain and automatic. Correspondence solicited.



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Lawrence, Mass.

NOTE our New Factory Additions and Improved Facilities for Manufacturing Our

"HIGH GRADE"

Bobbins, Spools and Shuttles

Correspondence Solicited

Catalog on Request



**Price Announcement From Mathieson Alkali Works.**

The Mathieson Alkali Works is announcing to its contract customers that in view of the continued weaknesses in the bleach market, it will be unable to maintain the previously announced price of \$1.50 per 100 pounds f. o. b. Niagara Falls, as applying to carload contract shipments in standard drums for November and December, and will apply for all shipments during those months, a price of \$1.25 per 100 pounds, credits being issued on past shipments.

It also announces to the trade in general, that price on contracts for twelve months for 1924, in standard drums in carloads of bleaching powder, are now being offered at \$1.25 per 100 pounds f. o. b. works and contracts for liquid chlorine in tank cars at \$3.25 per 100 pounds f. o. b. works.

**Receivers Appointed for Spartanburg County Mills.**

Spartanburg, S. C.—George A. Norwood, of Greenville, and B. C. Fiske, of Spartanburg, have been named receivers for the Spartanburg County Mills by Judge T. J. Mauldin. The court's order has been filed with County Clerk of Court Ernest Miller, of Spartanburg. Messrs. Fiske and Norwood have given bond in the sum of \$10,000 each and will enter immediately upon their duties.

The order for the appointment of receivers grows out of the case of Wade H. Gray, suing in behalf of himself and other creditors, against the Spartanburg County Mills. The motion was made by Nicholls & Wyche, attorneys for the plaintiff, with the consent of Bomar, Osborne & Brown, attorneys for the defendant.

It is alleged in the complaint of the creditors that the Spartanburg County Mills are indebted to the plaintiffs in the sum of \$119,275, for which they ask judgment. The books of the company show liabilities of \$466,236, and resources of \$200,000, it is alleged.

The order of the court empowers the receivers to continue the operation of the mill for 90 days and to sell the plant and product at private sale subject to court confirmation during that period. The receivers may borrow money to continue the business and are ordered to make an inventory of all the mill properties and report back to the court.

It is further ordered that all creditors of the company be enjoined from prosecuting claims in any court except in this action.

**Test Methods for Yarns.**

Testing methods and specifications for woolen weaving yarns and cloths and for woolen and cotton knitting yarns are to be worked out by two special sub-committees of the American Society for Testing Materials, it was learned from Alfred E. Jury, of the U. S. Rubber Company, who is chairman of the society's committee on textile materials, known as Committee D-13.

At a recent meeting of this committee authority was granted to proceed with the organization of

these two new sub-committees. These groups, in accordance with the practice of the organization, in relation to its work in cottons, will be made up of representatives of both producers and consumers of the textiles.

It has been found, Mr. Jury explained, that testing methods and specifications drawn up by a producer have an inevitable emphasis in his favor, and that the same is true with a code formulation by the consumer.

When the two classes are brought together in one group, it is found that they can work out tests and specifications which are mutually practical and satisfactory. "They establish a common language," as Mr. Jury put it.

While the primary purpose of the new sub-committees, which are now being organized, will be to establish testing methods and specifications for materials to be put to mechanical uses, Mr. Jury said that the development of the work would necessarily, as in the other activities of Committee D-13, lead to the establishment of rules for fabrics going into the manufacture of garments.

"These testing methods and specifications," Mr. Jury said, "are virtually certain to develop along such comprehensive lines as to make them applicable to other purposes besides mechanical, and that would include clothing."

In selecting the personnel for woolen weaving and knit goods yarns—the knit goods will include both wool and cotton—representatives of the spinners will meet representatives of cloth weavers and of clothing manufacturers.

Mr. Jury pointed out that while the value to the clothing manufacturer of testing methods and specifications might not be immediately apparent, the experience of the society has shown that the establishment of specific factors is found helpful by every branch of an industry. As an instance, he said that a test of the tensile strength of a cloth would indicate whether from that angle the cloth delivered was up to the sample.

Committee D-13 on testing materials is divided into the following sub-committees:

Advisory, humidity, fabric test methods, testing machines, classification and identification of fibers and fabrics, nomenclature and definitions, imperfections and tolerances, yarn thread and twine, publicity, hose, belt and numbered duck, cement bag test methods and specifications, membership, publications. The precise designations for the two new sub-committees have not yet been announced.

**Consumption of Cotton.**

The following figures give the consumption of cotton by United States mills to November 1:

	1922	1923
August .....	527,404	491,604
September .....	495,344	483,852
October .....	533,950	541,825

1,556,698 1,517,381

With one-fourth of the cotton year passed, consumption by American mills has been 39,417 less than last year, but exports are 300,000 in excess of last year.

J. C. Norfleet, Jr., Pres.

Allan W. Leftwich, Vice-Pres.

D. C. Groves, Secy. &amp; Treas.

**Norfleet, Leftwich & Co., Inc.****Cotton**

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**COTTON YARNS**

All Numbers, Regular, Reverse and Fancy Twists.

Mills wishing to sell direct to discriminating customers please write, stating counts and quality, carded or combed, skeins, ball or chain warps, tubes or cones.

Sales to customers by wire on mill's acceptance and approval.

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**WENTWORTH  
Double Duty Travelers**

Last Longer, Make Stronger Yarn, Run Clear, Preserve the SPINNING RING. The greatest improvement entering the Spinning room since the advent of the HIGH SPEED SPINDLE.

Manufactured only by the

**National Ring Traveler Co.**

Providence, R. I.

31 W. 1st St., Charlotte, N. C.

Manufacturers Should Look Up the Advantages of

**Metallic Drawing Roll**

Over the leather system before placing orders for new machinery, or if contemplating an increase in production, have them applied to their old machinery. It is applied successfully to the following carding room machinery:

Railways

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25 TO 33 PER CENT. MORE PRODUCTION  
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Established 1838

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Stocking Welting  
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Mock Seaming

Maximum Production  
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Unexcelled Quality of Work

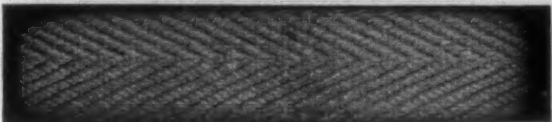
## THE MERROW MACHINE COMPANY

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## AMERICAN TEXTILE BANDING CO., Inc

Manufacturer

Spindle Tape  
AND  
Bandings



Boisfield Ave. and Wister St., Germantown, Phila., Pa.

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SOLE MANUFACTURERS

## Bosson & Lane

Works and Office, Atlantic, Mass.

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*"The Warps Best Friend"*

Moreland Sizing Company  
Spartanburg, S. C.

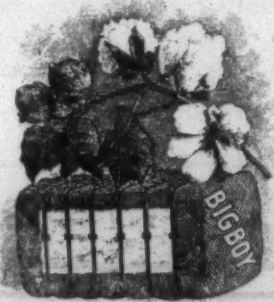
J. T. MORELAND, President

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BIGBOY  
DOMESTIC

ALABAMA, GEORGIA  
DELTA AND  
WESTERN  
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Direct selling agency for North and South Carolina and Virginia.

## ROBINSON & BAGGETT

Brevard Court

Charlotte,

N. C.

## President Hammett Discusses Mill Situation.

(Continued from Page 13)

are not as vicious as many would have our people believe. Their work was wonderfully well done, and is thoroughly appreciated by the industry as a whole. It is refreshing and a cause for congratulation, that men and women are rapidly coming to a realization that corporate property is disposed to be fair, in every way, and willing to bear its full share of the burden of government, and only asks that a fair disposition be evidenced towards such property. Your competent committee has been much in evidence in impressing this fact on the minds of the people, ably assisted by your competent general counsel.

"It may not be out of order to mention at this time that in one of the Northern States, where manufacturing is an important item in the States' affairs, a referendum was had as to a reduction of the hours of labor from 50 to 48 hours per week, and though the reduction was energetically advocated by all the professional agitators of the State and Nation, the election proved to be a great disappointment to the paid disturbers of the peace, and the proposed reduction in hours was overwhelmingly defeated."

## Jordan Mfg. Co. to Have Plant at Johnson City.

Johnson City, Tenn.—The industrial department of Clinchfield Railway announces the location in Johnson City of the Jordan Manufacturing Company, whose main offices are at Monticello, Ga. The company has purchased a tract of land on East Maple street on which it plans to erect buildings and install machinery at once for semi-finishing hardwood timber to be reshipped to its plants in Georgia and North Carolina for manufacture into bobbins for cotton mills. The main plant is at Monticello, while others are located at Dublin, Ga., and Toecane, N. C.

The company expects to build a finishing plant also. A. D. Roper, at present with the North Carolina plant, will move to Johnson City and assume charge of operations here. The company is the largest of its kind in the South and is said to sell its entire output of bobbins, spools, etc., to Southern cotton mills.

## Parks-Cramer Organization Holds Conference.

Following the Textile Exposition in Boston, forty members of the Parks-Cramer organization held a three days' sales and engineering conference at their headquarters in Fitchburg, Mass., November 5th to 7th.

The following members of the Charlotte organization were present: W. B. Hodge, vice-president; I. D. Kimball, Southern manager; P. B. Mayo, district sales manager; O. G. Culpepper, H. B. Rogers and W. H. Burnham, salesmen, and E. C. Rothrock, inspector. From the Atlanta office came J. F. Porter and F. C. Shaefer. Messrs. Thompson, Cottrell, Park, Brown, McKechnie and Macdonald were present from the Boston office.

This conference was opened by Robert S. Parks, treasurer and general manager, who stated that this was the third such conference to be held by the Parks-Cramer Company. Mr. Parks also drew attention to the fact that this organization, founded 51 years ago on a mere "shoestring" as capitals are today considered, had built itself up from within—an organization internationally known in the field of humidifying and air conditioning. Attention was drawn to the fact that this organization consists primarily of two plants—remote geographically, but welded together by the interchange of ideas and the friendships developed in these conferences.

"There is no reason why there cannot some day be in the textile industry itself the same extension of ideas and good feelings between Northern and Southern cotton mills that we have in our own organization as between the Fitchburg and Charlotte offices."

As a part of this conference many members of the organization had assigned to them a subject to speak on, which they were competent to take care of and to lead the discussion in. By this method many interesting points were brought out and the experience of one was made the information of all. Among the interesting subjects taken up were the following:

"Humidity From the Mill Man's Point of View," by B. S. Cottrell, who spent many years before becoming connected with this company in an executive position with cotton mills.

"The Development of the Turbo Humidifier," by A. W. Thompson, inventor of the Turbo Humidifier, and at one time mechanical superintendent of the Amoskeag Mills and agent of Saco-Lowell Shops at Lowell.

"Automatic Humidity Regulation in General," by W. B. Hodge, the company inventor of much of the equipment used by this company.

"Our Place in the General Piping Field," by H. M. Parks, president.

"Our Charlotte Plant—What We Are Doing and What We Hope to Do," by I. D. Kimball, Southern manager.

In addition to this much attention was given to the discussion of possible improvements of service to the customer.

## Fall River's Dividend Rate for Past Quarter.

Fall River.—The rate for the quarter just ending was not made larger than that for any one of the three preceding quarters by the majority of the mills increasing their dividends, but mainly by the King Phillip Mills paying 25 per cent extra on its \$2,250,000 capital and the Sagamore Manufacturing Company increasing its rate from 3 to 5 per cent, though the Davis increased its rate from 1½ to 3½ per cent and the Luther Manufacturing Company paid 10 per cent extra, and the Pilgrim paid an extra of 1 per cent on both common and preferred stock.

The Arkwright, Laurel Lake, Parker, Seacomet and Troy again passed their dividends, and the Stevens Manufacturing Company reduced its rate from 2½ to 1½ per cent. The balance of the mills



maintained the same dividend rate as for the previous quarter.

It is doubtful if the mills as a whole made any better showing than for the previous quarter, though production was greatly in-

creased, to the benefit of the operatives, who have not averaged more than three-quarters time since the advance in wages was granted them in the late spring. Considerably more cloth was sold in the course of the quarter, but prices obtained were admittedly low compared with production cost. Cloth prices have been advanced, but not in comparison with the advance in the cost of raw material, and mills that find themselves compelled to go into the market today for cotton are seriously considering curtailing.

**H. W. Butterworth & Sons Co. Open Southern Office at Greenville, S. C.**

Everyone who has lived or even visited the cotton States of the South realizes the tremendous growth of the Southern textile industry. However, to have a textile finishing machinery concern, established 103 years, open a branch office in the South and place it in permanently an officer of the company is a real acknowledgment of the greatness of the South's textile industry.

H. W. Butterworth & Sons Co., in opening the new office in the Woodside building, Greenville, S. C., have sent out a note to their friends in the South. The first few words in this explains fully their purpose in opening the new office.

The note which was sent out from the Philadelphia office reads:

"That we might be able to render a still more efficient and complete service to the South and her great textile industry, we have established a branch office in Greenville, S. C."

"In this office, 900 Woodside building, are kept complete plans of practically every Butterworth finishing machine ever installed in the South."

"The new office is in charge of J. Ebert Butterworth, treasurer of H. W. Butterworth & Sons Co. He is assisted by J. Hill Zahn, who also has been identified with our organization for a number of years."

"Both Mr. Butterworth and Mr. Zahn will be pleased to have you call upon them for any service which they might be able to render."

We feel sure that Mr. Butterworth and Mr. Zahn will be welcomed by that spirit which has made the designation "South" synonymous with "hospitality."

**10 Per Cent of Cotton Acreage Treated With Poison.**

Washington.—More systematic use of calcium arsenate poison by cotton growers in combatting the boll weevil, and other insects, is shown in reports to the U. S. Department of Agriculture from its crop correspondents. The figures show that approximately 10 per cent of the cotton acreage this year was treated with the poison. In some localities, six or more applications made during the season.

In South Carolina and Georgia, where the boll weevil has been most destructive in recent years, between 36 and 38 per cent of the cotton area was treated. In Florida the poison was applied to 45 per cent of the acreage, and in Arkansas 14 per cent.

## TOLHURST EXTRACTORS

Tolhurst Extractors show a greater saving in production — lower operating and upkeep cost — fewer repairs and far less depreciation.

There is a size and type of Tolhurst to meet every extraction problem.

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**Tolhurst Machine Works**

Troy, N. Y.



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**CONSOLIDATED TEXTILE CORPORATION**

Lynchburg Division  
Lynchburg, Virginia

We beg to say that we have been using your MI CLEANSER as a SCRUBBIING-POWDER for several years.

And we find that it gives BETTER RESULTS than any preparation of this kind that we have EVER USED.

**CHARLIE NICHOLS**  
Pres., Treas. & Genl. Mgr.  
**NICHOLS MFG. COMPANY**  
Asheville, N. C., U. S. A.

## Gum Tragasol Agglutinates

the fibres of the yarn—cotton, woolen or worsted whichever it may be—and prevents waste of good materials by eliminating flyings.

**Gum Tragasol is Cheaper**  
than either wool or cotton, therefore, its use is a distinct economy.

**JOHN P. MARSTON COMPANY**  
247 Atlantic Avenue, Boston

**Fire Without Having A Cleaning Period On**



For Use with Either Natural, Induced or Forced Draft  
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**THOMAS GRATE BAR COMPANY**  
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Machines Dye House Ballers.



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We guarantee our disinfectant to meet any government specifications. We manufacture them ourselves, and do not fill them with rosin or other cheap fillers. Get our prices. They will surprise you.

**MASURY-YOUNG CO.**

Established 1857

BOSTON, MASS.

## Emmons Loom Harness Company

The Largest Manufacturers of Loom Harness and Reeds in America

**Loom Harness and Reeds**

Slasher and Striking Combs Warps and Leice Reeds,  
Beamer and Dresser Hecks, Mending Eyes, Jacquard  
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## DIXON LUBRICATING SADDLE CO.

BRISTOL, RHODE ISLAND



Use Dixon Patent Stirrup Adjusting Saddles, the latest invention in Saddles for Top Rolls of Spinning Machines. Manufacturers of all kinds of Saddles, Stirrups and Levers.

WRITE FOR SAMPLE





**WARWICK-AIKEN & COMPANY  
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MISSISSIPPI, ARKANSAS, TENNESSEE COTTON OF SUPERIOR  
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**S. B. WILSON & CO.**  
Staple Cotton

P. H. Fuller, Jr., Agt., Gastonia  
Offices:  
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**F. L. BARRIER & CO.**  
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All Kinds of Staples and Grades  
Memphis, Tenn.

**L. W. MAGRUDER & CO.**  
Cotton

Mississippi, Tennessee and  
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Memphis, Tenn.



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Established 1896

Incorporated 1923

**F. M. Crump & Company**  
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Cotton Merchants  
MEMPHIS, U. S. A.

H. B. POTTS, Vice-President  
D. H. CRUMP, President  
A. C. ROBINSON, Sec. and Treas.  
J. C. WILLIAMSON, Vice-President

**Mills Fight Power Increase.**

Twenty-three cotton mills of North Carolina will oppose the petition of the Southern Power Company to the Corporation Commission that the rate for power be increased. The mills, which include fourteen plants in Alamance county, and nine of the mills of the Cannon chain, have retained counsel and will make active fight against the proposed higher power rate.

The Southern Power Company serves 308 mills in North Carolina and the 23 mills referred to above are the only textile plants that will oppose the rate increase. It is reported that 23 other plants have expressed their willingness to pay the higher rate and that the remainder have taken no action either for or against the newer rate.

The petition was filed by the Southern Power Company early in October after James B. Duke, president of the concern, had indicated in a statement to newspapers that he would cease water power development in North Carolina unless the increase was allowed because of the fact that his company was not making a profit sufficient to warrant a further investment. Mr. Duke asserted that \$60,000,000 had been invested by him in North Carolina water power development. He added, however, that though he would cease investing in the event of an unfavorable decision, that he would not discontinue operation of the plants now in operation.

The petition asks for an increase in water power rates of approximately 10 per cent, varying with the class of industry supplied and the amount of service purchased. It recites in detail the history of water power development by the

Southern Power Company and details previous transactions with the Corporation Commission on the occasion of a petition for increased rates three years ago.

**Drag and Twist.**

If too much "drag" is applied to a sliver in the drawing, a false draft is put on, and the diameter of it varies, becoming irregular in thickness, and breaking and causing waste. Loss of time occurs in piecing. To remedy this, more twist may be inserted, with the result that the sliver becomes "leaner," losing its elasticity and suffering considerably in the subsequent drafting operations, resulting in breakage of fibres owing to a greater amount of weight having to be put on the drafting rollers. Considerably more wear takes place, and more power is required to drive the machines.

These rules for adjustment of the factors governing the "drag" and "twist" may be heeded with profit: Examine the quality and condition of the sliver carefully. Regulate the size and composition of the washers according and position in the drawing. Study the twist at each stage, and bear in mind that the function of twist in the drawing operations is to give the sliver sufficient strength to resist breakage during winding and unwinding at the next operation, and that only in the actual spinning is twist regained to the full extent according to the class of fabric to be produced from the yarn. The wrapping of the flyer is a point worthy of attention, and has a direct influence upon the drag and condition of the sliver at all stages of the drawing, and is specially apter power development by the plicable to flyer spinning.

**Mossberg Pressed Steel  
Corporation**



Section Beam Head  
Patented June 7, 1921

All Steel

LOOM BEAM HEADS  
SECTION BEAM HEADS  
ADJUSTABLE BEAM HEADS  
(SPLIT AND SOLID)  
NARROW FABRIC BEAMS  
BEAMS FOR ELASTIC AND  
NON ELASTIC WEB  
BEAMS FOR SILK RIBBON  
"NEW PROCESS" DROP WIRES  
JACK SPOOLS

**Attleboro, Mass.**

Sou. Office: 201 Augusta St., Greenville, S. C.

**WATSON-WHITE COMPANY**

(Incorporated)

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**Employee Representation at Pacific Mills.**

(Continued from Page 7)

I would be glad to send copies of it to any of you who are interested. I would like to summarize it briefly and to point out a few of its chief characteristics. Our plan creates four shop councils composed of employees elected by secret ballot in the proportion of one representative for every 175 employees in a department and an additional representative for each additional 100 employees, and management representatives appointed by the management from persons of the rank of second hand or above. The plan provides that the number of management representatives shall never exceed the number of employee representatives—but in actual practice the management representatives in the shop councils are in the minority by a considerable margin. Each shop council has two standing committees, each one of which is composed of three management and three employee representatives. These committees are called (1) the production and factory conditions committee which considers matters of wages, discipline, and production, and (2) the health, safety, and general activities committee, which as the name implies considers those subjects which do not fall under the heading of the first committee. The idea back of the creation of these two committees was that many subjects would come up in the shop councils which would need careful study and investigation and that the shop councils were too unwieldy to undertake work of this nature. Finally the plan calls for what we call the plant committee, which is composed of the four employee chairmen of the shop councils and a fifth employee chosen by them and five management representatives appointed from among the treasurer, agent, the three superintendents, the mechanical engineer and the service manager. It is the duty of this committee to consider those questions upon which no agreement is reached in previous committees, to consider questions which affect the plant as a whole and to act as a committee on routine, procedure and election. The plan then provides when the various committees shall meet, how elections shall be conducted, who is eligible to vote and to be elected, how long representatives shall serve, how they shall be paid, how their freedom of action is guaranteed, how grievances must be handled and how the plan can be amended. I will not go into detail on any of these points except to explain the course that

grievance must take. The plan provides that the grievance he must first take it up with his overseer, then if it is not adjusted properly the employee and the representative can take it up with the overseer. If it still remains unsettled the assistant superintendent or superintendent meets with all of them and if it still is unsettled, the grievance can be brought up in the shop council. It is significant that in the drawing up of the plan the employee members of the joint committee were as insistent as the management in maintaining this definite line of authority and many of the representatives have often remarked that it is not only essential but also courteous to uphold the position of the overseer. The logical result of this attitude is that most of the real or imagined grievances are adjusted before they have an opportunity of reaching the shop councils.

There are a few features of our plan that we feel are somewhat unique. In the first place, we came out with a very frank statement at the start and definitely stated that the committees are advisory and are for the purpose of aiding the management in making its decisions with due regard to the point of view of the employees. This sentence alarmed some people who have had experience with employee representation and they stated it would kill our whole proposition as it was necessary to give the employees some definite legislative authority to arouse their interest. We took exception to this statement and analyzed many plans that seem to give legislative functions to the employees and we found that in most cases this function is so safeguarded that all the executive power actually remains with the management. We found that after all the employees expect us to conduct the business and that they do not want to assume the authority, but what they want is an opportunity to express themselves on the subjects which so vitally concern them and which heretofore have so often been decided without real information as to what the employees think about them.

Another feature of our system is that it is built up around the production men and makes the overseers and superintendents a definite part of the plan rather than featuring an industrial relations department of the high-falutin' type, a type which is fortunately dying a natural death. The overseers and superintendents are the men who face the problem of industrial relations from day to day and they are the men to whom the employees look for adjustments of their trou-

(Continued on Page 35)

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### Healds and Their Application.

(Continued from Page 14)

of yarn doubling, heald knitting and sizzing. If the turns per inch in the top portion of the healds are ever so slightly different from the bottom portion, the healds are liable to twist. The knitters have to be careful to have a well-balanced eye, and the sizing must be done before any varnish is applied. Some people have the opinion that twisting is not so prevalent in 4-ply yarn as it is in 3-ply yarn, and I think there is something in this idea, as a 4-ply yarn is not so elastic as a 3-ply. In this connection 4-ply means in practice 16 or 20 fold, and 3-ply means 12 or 15 or 18 fold, as each ply in heald yarn contains 4, 5, or 6 folds. "Shanking" is another cause of trouble which sometimes develops after the healds have been used some time, and for this the heald maker is often blamed unfairly. "Shanking" is the loop portion of the healds coming loose, when brought out of the loom after weaving, and cannot altogether be overcome by the heald maker, especially when fine heald yarns are employed, for then there is so little surface for the loop and the eye to fasten together, and also it is dangerous to good gaiting to put much varnish on the eye. The practice of doubling up a set of healds to tie the reed inside when bringing out of, or taking into the shed, accounts for a lot of shanking, and fine healds especially should always be kept straight. Of late years some users have gone in for having the knot at the bottom of the eye instead of at the top, with fairly satisfactory results as regards getting over the shanking trouble. In this way the two threads forming this loop are at the top, and there is a good chance of these threads getting stuck together, as they are both

on the same side of the stave.

Noozed healds are by far the most popular style of heald in use, more especially in districts where they draw in every warp. As before mentioned, the bottom portion of the heald is divided, thus allowing the usual drawer's rod to be inserted, and this fact, coupled with  $\frac{3}{8}$ -inch eye, allows quick drawing in. So far the automatic drawing machines will only draw in this style of healds. Makers of these machines originally asked for  $\frac{1}{2}$ -inch eyes, but latterly, owing to pressure from English users, they have adopted  $\frac{3}{8}$ -inch as a suitable eye for their machine. As regards the twist these healds are suitable to weave, I should say grey twist 24s to 100s and colored 20s to 100s. The heald machines will comfortably knit up to about 60 per inch on each shaft.

Another style of heald is described in the trade as mail healds. These are usually made of cotton with eye of steel, brass, or glass, and I have seen a lot of healds from China with eyes made of bone. In order to meet the demand for healds suitable for heavy cotton weaving mail healds are varnished. This did not turn out very successful, owing to the shanking of the mail if the healds were not very carefully handled in taking in or bringing out of the shed. This brought out the patent "A" mails, which have two holes at each end, the extreme holes being very small, so that the heald yarn jams itself into position and sticks there. It is essential that the thickness of yarn should be just suitable for the small holes, hence mail healds must be made to certain mails and yarn together in every case, and regard must also be paid to the number of healds per inch in relation to the width of the mail, or the mails get fastened together in varnishing and cannot be easily separated. Thus these varnished mail healds have their limitation, but are still most useful for many weaves, being particularly suitable for thick warp weaves, that is, any twist up to 20s; also they are very successful for heavy sized warps.

For extra strong weaving, such as sail-cloth, canvas, etc., there is nothing to equal twisted mail healds; the twisting of the heald yarn of course strengthens the pull of the healds very much, and there is absolutely no fear of the mail coming loose. These healds are made cross leased, but clients sometimes mount open lease, which makes the eyes into two distinct rows, and as sailcloth is very closely woven, and woven on two shafts, this open lease mounting is frequently very useful. These twisted mail healds are not very good to draw in, but I understand the warps are usually knotted, and so there is only one drawing-in to consider.

As regards wire healds, I believe they were made first in England from single soft mild steel wire, which is still used to a limited and decreasing extent, but we are indebted to Belgium and Germany for modern twin soldered hardened and tempered healds. In both these countries the making of varnished healds has never got well established, hence the weaving mills were more ready to take up the use of wire healds. The wire is first hardened and tempered, then put through a tinning machine two

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wires together, and the result is what is called twin wire, that is, the two wires are fastened together during the progress through the machine. A coil of this twin wire is put on the reel of the automatic heald machine, which pierces the two wires to form the eye, at the same time bending inward the loops. The loops and the eye part are then twisted to fasten, all at the same time. The latest machines carry the complete heald forward to the soldering pots, and so finish them off completely. The healds are soldered at the twists only, just to fasten and smooth off. For repair healds the ends are left unsoldered, so as to allow for same to be untwisted to put on the frame rods. Wire healds all have eyes at an angle of 45 degrees, so that the space occupied by the eye is thereby reduced. They are made from 34s wire for silk up to 18s gauge wire for belting. If they are properly hung the warp should not drop between the two wires forming the heald, but rest on the sides of the eye. The healds being at an angle of 45 degrees and the warp straight, allows the warp to rest partly on the right-hand side of the eye and partly on the left-hand side of the eye.

The most general style of wire heald mountings is on the sliding principle, which is very largely used in foreign markets. The frames have been made in two styles, one

with round rod for round loop healds and the other with flat rods for oval loop healds. My idea is that the flat rod type is much better, as it allows more freedom for the healds. A round rod allows for contact on all its surface, but the flat rod in practice is only in contact with the healds for about 25 per cent of its surface. Sliding wire healds require care and constant attention, but provided satisfactory frames are employed most excellent and economical results follow their use. They can be used for any counts, thus reducing very materially the stocks of healds. For dobby work, if got deep enough, they are most useful, and in this connection I would especially draw attention to the clip idea recently introduced, which provides against the wire healds jamming themselves into a diagonal position instead of vertical. This clip idea is much used in America and Switzerland, where they use nothing else but wire healds for all sorts of patterns. Sliding healds must be very slack on the rods and must have a very rigid frame, especially laterally. The frame must work steadily, and consequently these healds are not suitable for center lift dobbies. The rods must be kept very smooth, and they work better if every time they come out of the shed they are polished up by the application of blacklead rubbed on vigorously with a rag. In sliding frames the rod hooks are rather troublesome, as the fixed hook requires the counting of healds between each hook, and the sliding hook increases the thickness of the frame sometimes catches in working, and also will not readily slide. I think the patent glider hook will be a great help. In any case, for patterns some little time should be given up to getting

the frames ready, counting the healds off, etc. Much time is saved also if healds are slid on strings when taken off frames, which also keeps the healds all one way at the correct angle. A good plan is to stain one end of the healds and always keep this at the bottom, thus ensuring the same angle for all time. There is no doubt wire healds are quite suitable for pattern work, and now that sheds are fitted up with runways the old idea of bulkiness as an objection does not stand. As regards the number per inch of wire healds to employ, a good scale is to count some on a frame and take 80 per cent as a working number. Suppose you find 20 wire healds occupy one inch 80 per cent; of this gives 16 as a reasonable maximum number. If you want more per inch finer wire healds would be necessary or else duplex frames which have two rods side by side. For duplex frames allow 60 per cent, which gives 24 per inch. I think sliding wire healds could be used a great deal more in Lancashire with great saving in cost of healds, and particularly is this so in the case of dobby cloths, which are all woven in some countries on wire healds.

A later style of wire heald mounting is the knitted style, which is made to the exact number per inch and exact width required. They are now being most successfully used in this country for regular sorts, being largely employed in Bradford for fine worsteds, and are being successfully used in Nelson and Barnoldswick for fine reed cotton, satens, etc. They are very pliable, and the weavers can get their hands between the healds when drawing ends in. The framings have thick ends to prevent the knitted portions rubbing together. Another big advantage arises from the possibility of dividing the healds into two distinct rows, thus giving more room for the warp, in fine reed weaves. These healds are rather costly in the first place, but prove very economical in the long run in sorts which punish crowded cotton healds.

Doup healds have evidently been an interesting subject, if one judges by the number of patents and ideas on the subject; but the old-fashioned worsted doup heald is still the only all-round heald proposition for leno weaving. These are usually made with the slip at the bottom and to shoot naturally to the left. Sometimes rights and lefts are required but never all rights. The hand is got by reversing the lease of the loop portion of the heald through which the slip passes. Top douns are also occasionally called for. Many old doup users order all lefts, and draw them in rights and lefts or any way desired without troubling about the lease. Douns are mostly made from worsted, a thicker and corded quality being used for the slip portion. They consist, of course, of three parts, two of which are machine knitted and the knotted part done by hand. A two-eyed wire standard with loose lengths of worsted put through is used occasionally in America, where a triple flat steep doup is also used. —Walter Jones, in Journal of Manchester College of Technology Textile Society.



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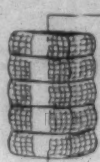
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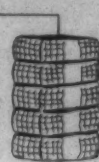


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**Employee Representation Plan At Pacific Mills.**

(Continued from Page 31)

bles and therefore they must be an integral part of employee representation. I once went with a party of overseers to visit a plant where a complicated system of employee representation had been installed and we talked with one of their numerous assistant directors of personnel, whatever that is. After he had talked to us in a very academic vein on the psychological effect of various terms they used, he said, "Whom am I talking to, are you all industrial relations men?" I answered "Yes, and three of us are overseers." In other words, our aim is to aid the overseers and superintendents in handling this problem themselves.

I would also like to point out that in our shop council meetings the management is greatly in the minority, at a meeting where there are, say, 50 employees there will be only a half a dozen management representatives. There was considerable feeling against this at first on the part of the overseers as they felt that they would always be outvoted. We felt that if we opposed thirty employee representatives with the same number of management representatives that we immediately gave the impression that the shop councils had legislative functions and that we had a solid front of management representatives to block anything that we disliked. When we explained that the purpose was to get the point of view of the employees and to give to the employees our point of view, and then gave the management representatives to understand that they were to act on their own judgment in these meetings without any definite instructions from the management how to vote, then this feeling began to subside.

I do not wish to appear to prophesy what results will come from our plan of employee representation for two reasons: first, because prophesying is a dangerous game especially in the field of industrial relations, and secondly, because our plan is really still in its infancy and it is too early to draw definite conclusions. I will, however, trace hurriedly the kind of subjects that have come up for consideration. Some people were considerably startled and discouraged by the fact that the first resolution offered read as follows: "Resolved, that the shop council requests an increase wages of 29½ per cent." In reality this was the most logical question that could come up because for a few months previous to the adoption of our plan the papers had been full of stories about similar demands throughout the textile industry. This question was finally settled with the general increase of 12½ per cent in wages that was granted in New England this spring. Next came a series of requests for minor improvements such as elevator service, opening of windows, parking spaces for automobiles, regulation of traffic in front of the mill, crowding on the stairs, opening of the gates, etc. Some of these requests were granted, others were granted in part, and others were turned down with sufficient reasons that

convinced a majority of the representatives that they should not be granted. The next big question that came up was a request for the mill to furnish with no cost to the employees a sickness and non-industrial accident benefit plan which would pay the employees a maximum benefit of \$20 per week. The management was opposed to this for two reasons, first, that the expense burden would put us at a serious disadvantage with our competitors and secondly, that the principle of a sick benefit plan paid for entirely by the management was wrong and would result in many abuses. As this was a question that affected the plant as a whole it came up to the plant committee, which, after considerable discussion, resolved that it would not recommend to the management the adoption of such a sick benefit plan. The matter was not allowed to stop there, however, and we now have under consideration a sick benefit plan under which the management and the employees would share the expense equally. Gradually the discussions in our shop councils have become more and more constructive until at the present time production methods, improvement of quality and reduction of waste are topics on which the employees are making excellent suggestions. There is no question but that many operatives are full of ideas as to how conditions can be improved and now that the committees realize that low cost and good quality will help the employees by resulting in more sales and steadier work, they are beginning to express these ideas. The question came up why the filling was breaking to such an extent in one of our weave rooms. The weaver blamed the spinner, and the spinner the weaver and no agreement was reached when these two overseers took the matter up with the assistant superintendent. Finally the employee representative from the weave room proved conclusively how the size of the bobbin was causing the breakage of ends. On another occasion the familiar question of oil stains on the cloth was raised and a number of causes for these stains were removed by adopting the suggestions of the employee representatives. One of our production and factory conditions committees has had referred to it at the suggestion of one of the employees the task of tracing the causes for poor work in all the departments of the mill and is just now beginning in a systematic sort of a way to find out the reasons for rejecting cloth, to determine what caused each reason and to offer a solution for overcoming them. Quite often well meaning students of the labor problem come up to the mill and say "I suppose if you treat your help like children you get along all right with them." My answer always is that you would not get very far if you tried it and the meetings of our committees prove that statement absolutely.

After this description you may say to yourselves that I am a prejudiced enthusiast and that it is necessary to discount what I am saying. I therefore will refrain from giving my own opinions but will summarize a few opinions of what I call unprejudiced men. I recently was

talked with three of our overseers, all men who had come up from the ranks, one of whom has been with us over 30 years and all of whom are good common sense men. Out of a clear sky one of them volunteered that in his opinion employee representation was a logical development towards improving conditions and the man that benefited as much as anybody was the overseer. The other two heartily agreed with what had been said. Another overseer who had been troubled for some time with dissatisfaction in his room concerning a piece rate price told me that employee representation had enabled him to keep his men at work while a test was being made to determine what the correct piece rate should be. He is confident that it prevented a walk-out from his department. Still another overseer has told me how the morale in his room has changed from a feeling of sullenness and suspicion when the strike of 1922 was over to a feeling of mutual helpfulness since we have had employee representation. Let me also quote one or two opinions of our employees showing how they feel about employee representation. A loom fixer was describing to me what used to happen in his room when something went wrong with the cloth. The overseer would call in the second hand and give him hell, then the second hand would find the fixer on whose section the cloth was made and give him hell. Then the fixer in turn would single out the guilty weaver and give him hell and so everybody down the line succeeded in getting sore. He then went on to say that now instead of a general bawling out, the real cause of the trouble and the remedy are looked for. Another employee has described to me how for years he has felt that the entire relationship between employer and employee has been based on antagonism but that now he sees a real drawing together as our mutual interests are developed.

**Market for U. S. Goods in Austria May Expand.**

Washington.—If conditions in Germany continue critical, a much larger market for American products will become possible in Austria and the Balkan States, says Trade Commissioner William Ford Upson

in a cable to the Department of Commerce. Trade with Germany is now much hampered by uncertain conditions existing there. The Austrian market would absorb especially such American lines as leather, textiles, and specialties, Austrian business men are already reported to be starting for America. Generally, the German situation has had surprisingly little unfavorable effect on Austrian domestic business.

Austrian savings deposits at the end of August amounted to the equivalent of \$6,193,000, about 14 times the amount at the end of September, 1922, during which time there has been no change in the value of the crown. The savings deposits index increased 6 per cent during September.

**7,554,587 Bales are Ginned to Nov. 1.**

Washington, Nov. 8.—Cotton of this year's crop ginned to November 1, aggregated 7,554,587 running bales, compared with 8,139,215 bales ginned to that date last year and 6,646,354 bales to the same date in 1921, the Census Bureau announced today.

Ginnings included 194,677 round bales, counted as half bales; 11,521 bales of American-Egyptian, and 437 bales of sea island, compared with 142,269 round bales to November 1 last year, 13,335 bales of American-Egyptian and 3,136 bales of sea island.

Revised statistics for cotton ginned to October 18 this year placed the number of bales at 6,415,145 instead of 6,400,579 bales as announced October 25.

Ginnings by States to November 1 were announced as:

Alabama, 494,702; Arizona, 33,249; Arkansas, 392,188; California, 19,491; Florida, 11,422; Georgia, 490,142; Louisiana, 299,086; Mississippi, 455,856; Missouri, 53,621; North Carolina, 729,611; Oklahoma, 295,606; South Carolina, 626,604; Tennessee, 122,301; Texas, 3,496,479; Virginia 21,836; all other States, 12,393.

**Buenos Aires Wool Stocks Low.**

Wool stocks are low but the new clip is arriving on the market from Entre Rios, and the fine cross grades are bringing 21 pesos (1 pesos equals approximately 32 cents per 10 kilos, according to a cable to the Commerce Department from Assistant Trade Commissioner George S. Brady, Buenos Aires.

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## Cotton Goods

New York.—The rapid rise in raw cotton last week was followed by sharp advances in cotton goods prices. On percales the advance was 2 cents a yard, while on some lines of bleached and dyed cottons the rise was 1 1/2 cents. Prices on brogn goods went up half a cent and the same advance was noted on Southern staple gingham. Buyers continued to hesitate over placing orders for their normal requirements, and under present conditions the mills are reluctant to contract for forward delivery at current prices.

Many lines were temporarily advanced when cotton advanced so suddenly last week. Previous to the cotton rise, blue denim for delivery the first three months of next year were being offered, and were active sellers, but were withdrawn when cotton touched 34 1/2 cents for New York spots.

The volume of jobbing and retail business continues to be built up by smaller sales for prompt shipment, although future requirements are not being anticipated in a large way.

Trade in gray goods was somewhat quieter as the week ended, although cotton was firmer. Cloth prices held very steady. Day to day trading in small lots has been followed by slight advances in prices.

In many centers, in the primary market, statements continue to be made that buyers of finished goods have not yet shown any inclination to purchase more than their regular needs, in spite of the recognition that prices are due higher. It is not necessary to impress upon the buyer of finished goods that, considering the basic raw cotton, we are necessarily due for much higher prices. The buyer answers that he has been "burned" on every similar previous occasion when he anticipated such rises and regardless of the fact that

the fundamentals today are considered stronger than on any such previous occasions, he will pay what the market demands—as he needs more merchandise.

Sheetings were quiet. Some sales of 4-yard 37-inch goods were made at 13 cents and some 5-yard goods at 10 1/2 cents. For 31-inch 5-yards it was said to be hard to do any better than 10 1/2 cents. Jobbers have bought in some instances for their needs for the first quarter of the year, but this has not been general.

Sateens have grown firmer and on Saturday 4.20s were sold at 17 1/4 cents and 4.70s were quoted at 15 cents. Twills have been in better demand in small lots for lining purposes, 3-yard goods being quoted at 60 cents a pound. Pajama checks sold at 10 1/4 cents for 64x60s. Osna-burys sold at 18 cents for 40-inch 7-ounce goods.

Fine combed goods were quieter, but the markets appear steadier. Hard twist voiles are bringing 15 1/2 cents and combed pongees of the better grades have sold as high as 17 cents.

Cotton duck quotations were put on an established basis toward the close of last week. Before that most sellers would put everything up to the mills they represented. There was a general readiness to sell stock goods at moderate concessions under January or late delivery terms. This led to a moderate amount of business going through at the beginning but interest declined toward Saturday. Single filling quotations rose from a low of 23 cents to 24 1/2 cents for C grades. A double filling advanced from 26 cents to 27 1/2 cents and army duck from a 58 cents basis to 61 cents. Numbered duck that heretofore sold at 40 off rose to 30 off. Hose and belting duck that sold heretofore with difficulty at 47 cents now bring 53 cents. Drills rose 4 cents a pound in two weeks.

Cotton goods prices at the week end were quoted as follows:

Print cloths, 28-inch, 65x64s, 8 1/2 cents; print cloths, 28-inch, 64x60s, 8 1/4; gray goods, 38 1/2-inch, 64x64s, 11 1/2; gray goods, 39-inch, 68x72s, 12 1/2; gray goods, 39-inch, 80x80s, 14 1/4; brown sheetings, 3-yard, 16; brown sheetings, 4-yard, 14; brown sheetings, standard, 17; ticking, 8-ounce, 27 1/2; denims, 2.20, 25; staple gingham, 19; kid finished cambrics, 10 1/2 to 11 1/2; dress gingham, 21 1/2 to 24; standard prints, 10 1/4.

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# The Yarn Market

Philadelphia, Pa.—A marked improvement was noted in the yarn market the latter part of the week. Inquiry was very much larger and it was believed that very good business will be placed for the next few weeks. The renewed demand came after weeks during which buyers displayed practically no interest in yarns. One of the most encouraging signs of the renewal was that interest in yarns was very general. Orders came in from all divisions of the trade and from all sections of the country.

Prices quoted by spinners continued higher than those of the dealers in this market. One reason for the difference in prices is that Southern spinners are having to pay more for cotton than spot cotton is quoted in New York. Spinners point out that their prices are still too low to allow them a margin of profit and that yarns must go higher in keeping with cotton prices.

Mill agents and dealers here believe that the buyers have reached the point where they must come into the market for further supplies. They have been holding off for over six weeks, during which time cotton has shown a sharp advance. Yarn consumers generally are credited with having only very small stocks of yarns and any increase in their orders means that they will have to cover their yarn needs.

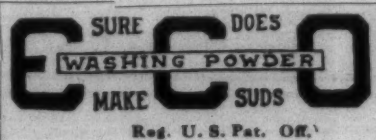
Carded yarns continued better than combed counts. Towel manufacturers have bought moderately, in one case 25,000 pounds of 20s and 30s. A few small sized insulating yarn orders were placed within the past day or two. One such contract was for 25,000 pounds, five-pound breaking strength, which was sold at 43 cents, which was ½ cent under the low price of last week. The only answer was that the seller was trying to break in a new customer.

There were a few scattered advances applied to the yarn list Saturday. Two-ply skeins up to 30s were pegged up 1 cent. Single chain warps and skeins were partly advanced.

Current prices for yarns, as quoted in this last week market are given below:

Two-Ply Skeins.		
8s	---	a49½
10s	---	a50½
12s	---	a51
14s	---	a52
16s	---	a53
20s	---	a55
24s	---	a57
26s	---	a58
30s	---	a59
40s	ordinary	a69
40s	high grade	a71
Two-Ply Warps.		
8s	---	a50
10s	---	a51
12s	---	a52
14s	---	a53
16s	---	a54
20s	---	a56
24s	---	a58
26s	---	a59
30s	---	a60
40s	ordinary	a70
40s	high grade	a74
Frame Spun Carded Yarn on Cones.		
Cotton osiery Yarn.		
8s	---	47 a48
10s	---	48 a40
12s	---	49 a50
14s	---	50 a51
16s	---	50½ a51½
18s	---	51 a52
20s	---	52 a53
22s	---	53 a54
24s	---	54 a56
26s	---	55 a56
30s	---	58 a58
40s	double carded	67 a68
30s	tying-in	a60
Sinkle Skeins.		
4s to 8s	---	a47
10s	---	a48
12s	---	a40
14s	---	a50
16s	---	a51
20s	---	a53
24s	---	a55½
26s	---	a57
30s	---	a57½
40s	---	a66½
Single Warps.		
8s	---	a49
10s	---	a49½
12s	---	a50½
14s	---	a51½
16s	---	a52½
20s	---	a54
24s	---	a56½
26s	---	a57½
30s	---	a59
Two-Ply Combed Peeler Skeins and Warps.		
8s to 16s	---	62 a--
20s	---	65 a--
24s	---	68 a--
30s	---	73 a--
40s	---	80 a--
50s	---	85 a90
60s	---	95 a1 00
70s	---	1 10a1 15
80s	---	1 20a1 30
Combed Peeler Single Yarn on Cones.		
10s	---	59 a--
12s	---	59½ a--
14s	---	60 a--
16s	---	60½ a--
18s	---	61 a--
20s	---	62 a--
22s	---	63 a--
24s	---	64 a--
26s	---	67 a--
28s	---	68 a--
30s	---	69 a--
36s	---	72 a--
38s	---	73 a--
40s	---	74 a--
50s	---	85 a90
60s	---	95 a1 00
70s	---	1 05a--

The general tone of the Bradford Trade showed a slight improvement, compared with recent weeks. The operatives are not in sympathy with the proposals of the Bradford Chamber of Commerce that the Safeguarding Act be revived, in order to allow an export duty on foreign wool textiles to alleviate unemployment also is being discussed.



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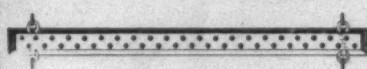
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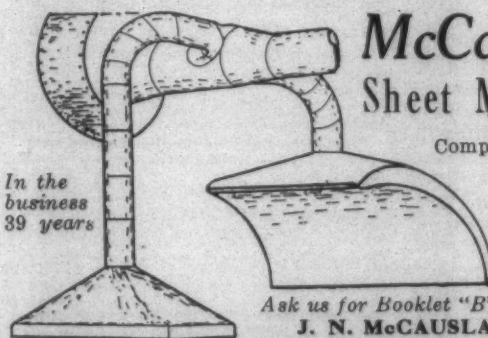
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WANT position as superintendent, carder or spinner. Practical man of long experience in good mills. Fine references. Address No. 3825.

WANT position as master mechanic. Now employed, but want larger job. Many years experience as mechanic, steam and electric drive. Excellent references. Address No. 3826.

WANT position as superintendent or traveling salesman. Experienced mill man and can give excellent references. Address No. 3827.

WANT position as superintendent. Have held position as such in some of the best mills in South and give satisfactory references to any mill needing first class man. Address No. 3827.

WANT position as master mechanic. Long experience in mill machine shop, fully competent to handle large job. Fine references. Address No. 3829.

WANT position as overseer carding or spinning, or superintendent. Practical man who has had many years experience as superintendent and overseer and can get satisfactory results. Best of references. Address No. 3821.

WANT position as superintendent of yarn mill or carder or spinner. Thoroughly familiar with these departments and am well qualified to handle either a room or a mill. Good references as to character and ability. Address No. 3832.

WANT position as superintendent of mill in North Carolina, making yarns or print cloths. Now employed as superintendent of 27,000 spindle mill making 30s hosiery yarn and 64x60s print cloth. Am giving satisfaction but have good reason for making change. Best of references. Address No. 3833.

WANT position as superintendent or overseer carding. Long experience as both and can get good production at low cost. Would like to correspond with mill needing high class man. Address No. 3834.

WANT position as overseer of carding. Good worker of long experience in number of good mills. First class references to show past record. Address No. 3835.

WANT position as superintendent or overseer carding and spinning. Now employed, but wish larger place. Competent, reliable man who can give satisfaction in every way. Good references. Address No. 3836.

WANT position as superintendent or manager. Have had long experience as superintendent and am high class man in every respect. Can handle mill on any class of goods made in South. Want to correspond with mill needing high class executive. Excellent references from reliable mill men. Address No. 3837.

WANT position as overseer weaving. Practical weaver who can get big production at the right cost. Fine references. Address No. 3838.

WANT position as overseer weaving. Can handle any fabric made in South. Have had over 27 years experience from loom fixer to overseer weaving and was promoted steadily by one of largest mills in the South. Married, have family, religious worker, good manager of help. Can give excellent list of references. Address No. 3839.

WANT position as superintendent, prefer South Carolina or Georgia. Now employed as assistant superintendent and weaver and am giving entire satisfaction. Have good reasons for wishing to change. Excellent references. Address No. 3840.

WANT position as overseer weaving, prefer job of fancies. Have been weaver for past 10 years with one of the finest mills in the South. Excellent references to show a fine record. Address No. 3841.

WANT position as superintendent, yarn mill preferred. High class man who is well trained and has had long experience. Best of references. Address No. 3842.

WANT position as superintendent. Now employed as such, but want better job. Good weaver as well as superintendent

and get operate weave mill on very satisfactory basis. Address No. 3843.

WANT position as superintendent, carder or spinner. Now employed as superintendent. Long experience as both overseer and superintendent and can get satisfactory results. Address No. 3844.

WANT position as overseer carding. Have had long experience and can furnish best of references from past and present employers. Address No. 3852.

WANT position as overseer weaving. Experienced in wide variety of fabrics and can give satisfaction. Now employed. Best of references. Address No. 3853.

WANT position as dyer, 12 years experience on long and short chain work, raw stock, beam and Franklin machines. Can handle any size jobs on cotton. Good references and can come on short notice. Address No. 3854.

WANT position as overseer carding. Experienced an dreliable man who can handle your room on efficient and satisfactory basis. Good references. Address No. 3855.

WANT position as superintendent of medium sized mill or weaver in large mill, white or colored goods; 20 years as overseer weaving, slashing and beaming in number of South's best mills. Have held present place for nine years and am giving entire satisfaction. Address No. 3856.

WANT position as superintendent of plain or fancy goods mill, would consider offer of medium size mill at reasonable salary. Thoroughly conversant with all departments. Address No. 3857.

WANT position as superintendent of yarn or cloth mill, gingham preferred; age 40, have family; 22 years experience, 8 years as carder and spinner and assistant superintendent; have held last position as superintendent for 7 1-2 years. N. . mill preferred. Good references. Address No. 3858.

WANT position as overseer weaving or superintendent. Long experience in good mills and can get good results. Best of references. Address No. 3859.

WANT position as overseer carding; age 33, married, 14 years in carding; 5 years as overseer. Now employed but have good reasons for wishing to change. Address No. 3860.

WANT position as superintendent of weaving mill, or would take overseer weaving in large mill on plain or fancy goods. Now employed in good plant and can give good references. Fine record in good mills. Address No. 3861.

WANT position as overseer spinning. 17 years in spinning room, now employed as second hand in 35,000 spindle room; age 28, married, sober, reliable and church member. Good references. Address No. 3862.

WANT position as overseer spinning, spooling or twisting. Age 29, married, 10 years on spinning. Can furnish good reference. Address No. 3863.

WANT position as carder or spinner, or both. Age 35, married, practical carder and spinner and can furnish fine references as to character and ability. Address No. 3864.

WANT position as overseer spinning, or carding and spinning, can give good references as to character and ability, strictly sober, now employed but have good reasons for wishing to change. Address No. 3865.

WANT position as overseer cloth room, experienced on drills and sheetings; also colored goods. Can give A1 references. Address No. 3867.

WANT position as carder or spinner, or both. Experienced and reliable man, who can produce good results. Good references. Address No. 3868.

WANT position as superintendent, now employed as such, but wish to change; 4 years in present place, 8 years as carder and spinner or both warp and hosiery yarns, 5 years as spinner, been in mill over 25 years, thoroughly understand all processes from picker room to winding and twisting. Good knowledge of steam and electricity. Address No. 3869.

WANT position as overseer spinner, at \$30 weekly or more, now employed in good mill, practical and experienced man. Best of references. Address No. 3870.

WANT position as superintendent or weaver; long practical experience, and can produce quality and quantity production. Address No. 3871.

WANT position as overseer weaving; 12 years on heavy duck, 14 years as overseer on sheetings, drill, osaburgs, grain bag, tubing and rope machines; am 45. Can change on short notice. Good references. Address No. 3872.

WANT position as overseer weaving, experienced on large variety of goods and can handle room on efficient basis. Address No. 3873.

WANT position as superintendent of small mill, or weaver in large plant; now employed as overseer slashing, warping and drawing-in on 360 Draper looms. Good references. Address No. 3874.

WANT position as superintendent, yarn or weave mill. Now employed, but wish larger place. Excellent past record. Good references. Address No. 3875.

WANT position as agent superintendent or manager of Southern mill on white work. Would be interested in buying stock. Can furnish best of references and can show results. Address No. 3876.

WANT position as overseer weaving, now running 800 looms and giving satisfaction; familiar with colored checks, cambrays, many other lines; age 39, married, good references. Address No. 3877.

WANT position as overseer weaving; age 29, married, I. C. A. graduate, experienced on plain and fine work including all kinds of cotton towels and specialties. Good references. Address No. 3879.

WANT position as superintendent; 28 years experience in mill, have held present place as superintendent for 8 years, have good reasons for wanting to change. Best of references. Address No. 3880.

WANT position as supt. of yarn mill, or carder and spinner. Now employed as carder. Can furnish good references to show my record. Address No. 3881.

WANT position as carder in large mill, or supt. of small yarn mill; 20 years as carder and spinner; mostly in carding and assistant supt. Now employed as carder and assistant supt. Good references. Address No. 3882.

WANT position as carder or spinner, or both. Practical man of long experience; have excellent references. Address No. 3882.

WANT position as supt. or weaver, long experience in good mills, excellent references to show character and ability. Address No. 3883.

WANT position as supt. of spinning mill, practical experienced man of good ability and can get results. Address No. 3884.

WANT position as supt. and manager of small or medium mill, or overseer of large, good paying weave room. Excellent references. Address No. 3885.

WANT position as master mechanic; 20 years experience, now employed, good references to show excellent past record. Address No. 3886.

WANT position as carder and spinner or both, or supt.; 25 years in mill, 18 as supt.; married, have family. Address No. 3887.

WANT position as spinner, white work preferred; experienced and reliable man. Can come on short notice. Best of references. Address No. 3888.

WANT position as overseer of spinning, now employed as such and giving satisfaction, but wish larger place. Married, good habits, reliable and competent. Good references. Address No. 3889.

WANT position as overseer spinning. Experienced spinner, practical and capable, good character and habits, best of references. Address No. 3890.

WANT position as supt. or would take carding or spinning. Good references to show an excellent past record and can produce good results. Address No. 3891.

WANT position as carder or spinner in large mill, or supt. of small or medium size mill. Long experience in good mills; good manager of help. First class references. Address No. 3892.

WANT position as supt. of small mill, with opportunity of investing in mill and advance. Long experience as overseer, good character, inventor and owner of patent that will be of great value to mill equipped to use waste sock. Patent would give mill big advantage in manufacture of twine, rope and similar products. Would take stock for entire amount of pattern and invest small amount in addition, or would consider new mill. Address No. 3893.

WANT position as master mechanic. Long experience on both steam and electric work, 14 years in mill shops, good references. Address No. 3895.

WANT position as supt., assistant supt., carder or spinner, mule or ring frames, good man of long experience, best of references. Address No. 3894.



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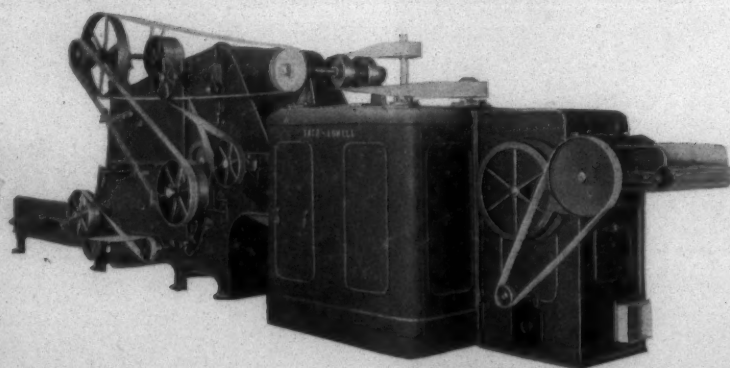
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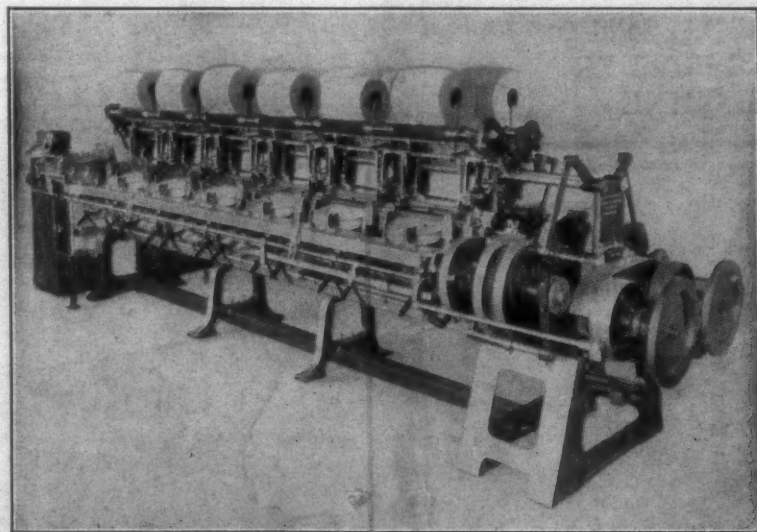
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**DURABILITY  
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**Twin Six**

**1922 Models**

**Single Six**

**The Ideal Comber For All Short Staple Cottons**

Advantages of the two-sided machine are:

- (1) Economy of floor space, shafting, pulleys and straps.
  - (2) Great reduction in the distance traversed daily by the operative.
  - (3) Setting all done while standing upright, in full light, in front of each machine.
- The machine can be built as a single six-head machine if so desired.

*Southern Representative, J. H. MAYES, Charlotte, N. C.*